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Materia Medica

Prof Tully Course of 1852-3

Preliminary remarks

Every department of nature is governed by fixed laws, a knowledge of which constitutes a man of science, the skill to use ~~of~~ them an artist.

A science is considered by Prof. T. as a system of connected and reliable facts resting upon good evidence. It is a question whether Medicine ought to be called a science or an art. It is high time for practical men to adhere to facts and to be free from hypotheses leaving the prejudices of ancient times & coming up to the progress of philosophy in other departments. Medicine ought to be a science, as above defined.

Still medicine must be both a science and an art both. All the learning which a physician can obtain from books and from schools is but the foundation of usefulness. The art must be added. The science of medicine rests upon a fixed

a basis as any other, but will be useless without skill or power of discrimination acquired by experience.

Art furnishes hands, and science eyes both are dependent upon each other

By art men of good sense may become quite useful as physicians but must be far inferior to what they would be, if well furnished with science. Such men make no good use of experience. Instances are the prejudice about the last Friday of the month about the influence of the moon upon vegetables naevi longings &c

True experience proceeds from observation corrected by science & reflection A person ignorant of astronomy may suppose that he has had experience of the motion of the sun.

Auxiliary branches of medicine chemistry botany and natural history including zoology are too much neglected. The former should be a preparatory study. Still the proper limit of chemistry must be well understood. Berzelius quoted upon secretion, digestion &c. He calls them vital processes. Lawrence quoted for the same opinion. Still digestion &c. may with

for her limitation be called chemical processes. The gastric fluid does not dissolve properly speaking, the food but decomposes and recomposes it.

Chemical remedies so fashionable for a time have entirely failed. Prof. T. thinks little is to be expected from chemistry in explaining the modus operandi of medicines. The same blood is transformed by different glands into twenty different fluids. One of the most striking facts in ~~vitality~~ physiology is the resistance afforded by the system to chemical laws. Chemical laws are applicable only to dead matter & are directly opposed to those of ~~Chemistry~~ Vitality. Broussais is doing much mischief by his use of the terms animal and vegetable chemistry instead of animal action or life. These sentiments are quoted from Lawrence.

We derive information upon composition in physiology from chemistry & need its use constantly in pharmacy and materia medica.

The benefit to the mind from the study of natural history has not been sufficiently insisted on. Mr. Lawrence observes that what we call method is much promoted by it. The greatest errors of physicians seem to be want

of discerne[illegible] or diagnostic skill & want of a knowledge of a sufficient number of remedies with their differences of operation. & this will be greatly promoted by the study of Nat. History

Lecture 2nd Health is the performance of the functions. Disease is the imperfect performance of one or more of them. Tho' every imperfection of function does not amount to disease. And it may be that disease is sometimes an excessive degree of a natural kind of action.

~~We must enquire into~~ 1st the digestive 2nd the respiratory function 3d the sanguiferous 4th nervous 5 sexual function 6 secretions also 7 glandular We must enquire also into 1st as to partial or general — 2nd acute & chronic 3d as to infectious or epidemic or sporadic. malignant & non malignant 4th the duration of predisposition before the ~~patient~~ physician is called & the duration of the disease since the predisposition

5th Type Diathesis Whether it observes critical days. Whether there be plethora Congestion or irritation 6th cause since T. [illegible] may counterfeit hysteria drunkenness &c. 7th Nosological place & name Since sudden attacks require prompt treatment

2nd Lecture

It is commonly said that we must pres-
cribe to symptoms. Such general rules are generally dangerous in medicine. Of the fallacy of this rule many examples may be given. In many diseases the same symptoms indicate a different degree of danger in different diseases or require opposite remedies.

Case. Two patients have languor lassitude, sleeplessness, anorexia, thirst dry skin &c. a quick and active evacuation was prescribed to each and ~~at night~~ in 24 hours one was well and the other dead. One was from a neighboring town where a malignant epidemic ~~[illegible]~~ was prevailing, the other had been engaged in a debauch. If the phys. had enquired, he would have done nothing for the one & latter die after 4

The 3 most important circumstances from which we deduce, are 1st the general predisposition of the patient 2nd the violence of the existing symptoms 3d the known cause of the disease

It is said universally that we must prescribe to the proximate cause, which is the condition of the system upon which the symptoms depend [illegible]

This is [illegible] in emergency Cases in [illegible]

proximate cause we must of necessity be entirely ignorant of—as much as that of gravitation

N. B. It is absolutely necessary for the Prof. of Mat. Med. to dwell more or less upon Pathology & for the Prof. of Theor. & Pract. to dwell upon Mat. Med. The way in which each treats of a disease will thus be often very different.

Materia Med. Treats of the effects of remedial agents upon diseased animal powers & the circumstances of use. Mat. Med. should not be made to include chem. & botany. Still it ought to be extended so as to include the circumstances which regulate the use of remedies

Every disease has its own peculiar quality of action & every article has its own peculiar (& specific in the proper sense) action so that no two can be exactly alike in their operation

Disease must be understood for in health remedies can be only chemical or mechanical!

Parts to which medicines are applied. Absorption of

Medicines should be confined exclusively to disease

Prof. T. thinks that the proposition that med. operate upon distant parts by being carried there is without foundation.

The parts ~~upon~~ to which medicines are applied are 1st stomach & alvine canal 2 skin 3d muc. memb. of nose & lungs. The latter is highly susceptible but can receive only aeriform bodies.

Translation [Sympathy] 1st ~~continuous sympathy~~ mere continuity of similarly organ-ized & similarly susceptible parts

2nd nervous sympathy nervous communication to dissimilar by organized & differently susceptible

3d nervous communication through the brain to distant & similarly organized & similarly susceptible parts

The doctrine of absorption & the action of remedies upon the parts ~~act~~ by contact seems to be a rude & mechanical notion. Case of a man whose duodenum was divided by a cart wheel - a cathartic operated. Yet this cathartic never reached the bowels - Prof. Wright

In the cases in which absorption is proved there seems to be no remedial effect. And the few cases are at most inexplicable & ~~useful~~ useless facts. Even where children are affected through the nurse the ~~the~~ effect is upon the child, not the nurse

O. — Absorptio [illegible]
The apparent metastases of bile is to be explained by vicarious action
Dr Dewees quoted on this side saying that when medicines are absorbed it is only after losing their activity. Etc. the business, he says, of the [illegible] to take up matters & keep them out of the circulation?. He says that much of the humoral pathology remains among us, by which all remedies were supposed to be absorbed & to act upon the part by actual contact. This is a pure hypothesis without foundation. The humoral pathologists may be satisfied, if they wish to be, by the laws of sympathy above laid down. Prof. Chapman considers sympathy a sort of magic word.
Nitrate of potassa is triumphantly advanced on the other hand because it is found in the urine, & a paper dipped in the urine & dried will deflagrate. But Prof. C. has found that this will indeed be the case when the bowels are torpid. But the quantity is very small in proportion to that taken, and bears no proportion

to the remedial effect. The bowels also must be kept costive - as was observed also by Paris. But the remedial effect may be very great while there is free catharsis.

Capsicum ~~upon~~ in cider will impregnate the urine with the odor of capsicum & produce some strangury or scalding pain if a man is cold and kept in the cold - but if kept warm the remedial effect of capsicum upon the system will be produced.

In the ten instances in which the absorption takes place, the remedial ~~effec~~ effects are produced previously to the absorption. The following Prof. T. thinks, are all the cases of abs. The only substances are nit. pot. chlorate pot. ferrocyanate of pot. nit. sil. (doubtful) also some narcotic ~~[illegible]~~ substances. Colouring principle is absorbed by Rubia tinct. Anchusa tinct. (alkanet) & Rheum australe (rhubarb)

Odoriferous prin. is abs. in Asparagus, Spartina glabra (sedge ~~[illegible]~~) affects the butter & milk Ceanothus canadensis cows milk also Turpentine - camphor - Some of the cruciferae Some of the mints - The garlics -

16 Remedies require corresponding states of system
Mustard emapisms have affected the breath (Dr Todd) Prof. T. has known ergot taken in such quantity as to produce convulsions ^& affect the breath
in T. prop. / iron it nauseates power

Prof. T. thinks there is proof that the remote ~~effe~~ effects of [illegible], mercury &c are not owing to the accumulation of the substances of these articles,

In ~~[illegible]~~ spontaneous combustion, alcohol has been used as food for a long time and the system seems to contain a larger proportion of combustible matter

It must be remembered that the operation of remedies are relative — ^and are relative to the state of the system. Stimulants require strong &c.

[The discussion in Murray Chapman & Eberle ^says Prof. T. do not meet the point at issue. Nobody denies that med[illegible] are more or less absorbed, the question is do their remedial effects depend on this absorption]

In conversation Prof. T. being questioned as to the operation of morphine for an example upon the blistered surface of the epigastrium said that though he denied that the skin was an absorbing organ yet when there was a blister or an ulcer the absorbents would take up remedial articles. Hence denial there of absorption must refer to the three organs mentioned above to the administration of remedies to them. The story of gin found in the brain of a man dissected in Guy's hospital he considered as not sufficiently well ~~[illegible]~~ authenticated.

Quere, if the skin does not absorb how can tobacco applied to the head of a child prove fatal?

Classification

Class. is a distrib. into groups of with a peculiar character.

There must be at least 4 grades

Species are the lowest & most important upon which the merit of the classif. depends.

Classif. is absolutely necessary Even dispensatories use the terms Cathartics refrigerants &c.

It is impossible to have a perfect classif. owing to the variety & the gradual differences and the imperfection of our knowledge

Some doubt however whether there is any good ground for Classif. in Mat. Med., because every remedy has a specific force. Still remedies have also common properties. Hence classification. Is there any remedy which has powers altogether peculiar to itself?

There are 5 methods of classif. 1st Chem. Botanical &c. affinities

2nd founded upon the parts i.e. leaves roots

3 upon proximate principles

4 part of the system which ...

5 remedial effects upon the system
These are all the modes which have been used

The first method was adopted by Linnaeus. But the maxim of Linn. that the species of the same genus have the same properties so of orders cannot be depended upon at all. Prof Lindley has wasted his labour entirely in determining the properties of his natural or[illegible]

For example there are but 3 species of polygala which have medicinal properties & of these P. senega is deobstruent P. rubella is bitter tonic & cathartic P. sanguinea;

But few species of the order Polygaleae are active. Lindley's account of the properties of this class very unsatisfactory: the class to which this order belongs [illegible]

Gratiola aurea resembles G. offic. of Europe differs mainly in colour is a pure bitter & tonic G. offic. active deobstruent, hydragogue cathartic [illegible]

Veratrum album was also long confounded with V. viride of Europe and is destitute of cath. powers. V. viride is a drastic hydragogue cathartic

Datura however has the minority of species similar in power but the majority have no powers at all. Trillium also has the same powers in general.

Be cautious about following this rule - originating in Caesalpinus adopted by Linnaeus - a favorite with Lindley - & too much a favorite with Eaton.

The second method is only calculated to bring together the most diverse articles possible.

3. The mode of classifying by proximate principles is equally bad. For instance how much alike are morphin cinchonine, cephaelin, caffein &c. Fixed essential oils would constitute another group. Volatile essential oils as camphor Turpentine, oil of mint &c. Resins would make another, as guaiacum balsam of Tolu. Yellow resin of [illegible] Inspissated juices as opium asafoetida &c will be equally heterogeneous.

It is true nevertheless that classes formed on this principle would have more or less of common properties

4th The parts of the system operated on. This is peculiarly fashionable especially among the French. P.

But then too upon the circulating system act primarily, some of the refrigerants & some of the stimulants. Upon the nervous system act both the nervines and the narcotics & probably the Alcoholics. Emetics and cathartics will be brought together. All the deobstruents will be brought out into one class. Those who adopt this method are obliged to subdivide their classes upon a different principle, that of remedial effect.

Sensible properties have been proposed as a ground of classif. But Indian nerves has scarcely any taste or smell. Elaterium has neither taste nor smell. It is believed that the exceptions to this rule are very numerous. Euphorbia for instance.

For Murray's classific. vide his work. Objection to Murray's classif. If Emetics are local stimulants how do they prove [illegible] &c. How can Elaterium if local cure dropsy &c. &c. Dr. M's General stimulants as [illegible] Carb. ammon. are in fact more local than his local stimulants

Six groups 1st group refrig.[1] nervina[2] narcotica[3] excitantia[4] ... [5] ... [6]
A natural group – naturally arranged
... of the groups & there is no evacuation except that the ... diabetr. produce one from the intestines

2nd group essentially consists of art. which produce an evacuation from parts distant from the al. canal ... which act by their impression on the stomach diuretica[6], diaph.[7], expect. do not exist[8] emmenag. perhaps[9] ecbolica

3rd group – articles producing an evacuation directly from parts to which they are applied
errhina[10] sialagoga[11] emet.[12] cath.[13] epispast.[14]

4th group consists of articles to which a mixed & various action is ascribed in each class and having very diff. qual.
anthelmint.[14] antidot.[15] antilith.[16]

5th group – articles having an action purely chemical
antacida or absorbentia

6th group – articles having an act. mainly purely mech. irritantia demulcentia. produce their ... on the vital part by a mechanical impression

1 or Selantia	9 or sternutatoria	Antidota are a class without foundation
2 antispasmodica	10 salivantia	
3 torpentia or sedativa	11 vomentia	
4 incitantia or stimulantia	12 purgantia	Epispastica includes rubefacients & caustics.
5 roborantia	13 vesicantia	
6 ~~...~~ alterativa	14 vermifuga	Ecbolics are narcotics, which produce convulsion ... Ergot produce common convulsion
7 or ~~diaph.~~ sudorif.	15 alexipharmica	
8 or partus accelaratoria	16 lithontriptica	

1st Refrigerantia or sedantia (called sedative) lessen the vital powers, independent of evacuation - abating irritability & ebullition, restlessness heat, thirst &c of entonic diath. These diminish temperature & force & fullness of pulse
2nd Nervina allay restlessness, tranquillize
in the second stage

in the third stage

3d Narcotica 1st allay irrit. more powerfully than the nervines 2nd allay restlessness jactitation, relieve pain & also more powerfully than nervines. 3d ultimate narcosis

Some of these produce convulsions in the first stages

4th Stimulantia increase arterial action & produce a quickly diffused but transient vital energy and strength of action
5. Tonica slow but permanent and ~~and~~ moderate increase vital action moderately & permanently increase appetite, digestion strength & fullness of pulse

6. Astringents increase morbidly deficient secretion & diminish morbidly increased
produce contraction of fibre

7 Deobstruents

III Group Diuretica Diaphoretica

Their essential operation is evacuation
on parts distant
1st Diuretics increase urinary
2nd Diaphoretics
3 Expectorantia - promote secretion &
facilitate excretion of pus or mucus
Prof. S. does not believe there is any such
class, in strict propriety
4 Emmenagoga excite catamenial secr.
Prof. S. knows of none pure - They are
tonics or deobstruents, or perhaps ner-
vines as asafoetida
5 Ekbolica. There are many of them
but they are however all narcotics
and also narcotics which produce
convulsive action somewhere as is

ture of Ergot, Actaea racemosa &c.

III Errhina Sialagoga Episp.

Must promise ob. upon parts to which they are applied

1st Errhina. Excite sneezing of mucus in mild errhines, serous

2nd Sialagoga by topical application produce salivation mercury & all the deobstruent, is of course excluded

3d Eretica. independent of taste odor nor bulk

4th Cathartica

5 Epispastica - including rubefacients vesicatorys & caustics

IIII Anthelmintica Antilithica Antidota. Have no character

1st Anthelmintics dislodge worms and are probably acrid stimulant. narcotics irritant (as tin, glass) or cathartic, or a combination. Canth. Tinct. is stim. Gamboge cath. Andira cath. & narcot. Turpentine stim. & cath.

Antidote antidotes to poisons, a class which Prof. T. declares has no foundation

V group comprehends only the antacids, or absorbents the only proper chemical remedy

VI irritation & demulcentia
1st By form bulk &c. irritate
2nd allay irritation internally & assuage when applied externally. The irritants are a-tered, mechanical the 1st & the 2d,

The above are all the known curations of medicines. Antiseptics are always stimulants & tonics
Aphrodisiac & Antaphrodisiac are stimulants & tonics & the opposite
Emollients are the same as demulcents

The French books contain the class specific. Prof. T. does not believe in its existence
Fumaria Lictorium Arctium Rumex are all deobstruent. Sulphur is deobstruent & cathartic. These are a part of Roy's cutaneous specifics. Arsenic Mercury Iodine &c. are others.

The specifics for periodical diseases as ague & fever, periodical headache &c. are tonics & astringents

Chief anthelmintics specifics are [illegible] other nervous mechanical or [illegible] cathartics

Lect. 4th A great variety of remedies is an advantage not an injury. No two remedies and no two cases of disease are exactly alike. Chronic cases frequently require a succession of remedies; a stronger one wearing out and being beneficially succeeded by a weaker one. Pecuniary circumstances & convenience & prejudices may require one remedy to be substituted for another.

It will be well for a young physician to distribute all remedies into two classes for convenience of memory, into two classes Efficient & Mild remedies

Though strong and powerful remedies are the most important yet mild and weak ones are at present too much neglected.

Our knowledge of many remedies is very imperfect as to their natural history. It is but three years for instance, since it has been known what plant produces the offic. Jalap.

It is too common for practitioners to be too negligent as to the minor point in the operation of remedies. Books are often justly complained of by young men as to their want of discrimination in this respect. They do not discriminate in respect to the prescription of Ipecac & Antimony for instance.

Materia Medica has not made the same advance as other branches. The cultivation of indigenous mat. med. is almost peculiar to this school - that is their especial cultivation.

There are but two or at most three articles for which we cannot find substitutes in the United States, viz. Turkey opium, Ipecac & Rhubarb. Lactucarium may be about as good as India opium. Euphorbia corollata is the nearest substitute for Ipecac.

Gilleria Trifoliata & Stipulacea are the nearest to Rhubarb. Apocynum Cannabinum Phytolacca decandra &c are no more substitutes for Ipecac than Veratrum.

Physicians are apt to suppose the virtues ascribed to indigenous articles as exaggerated & imaginary.

Mismanagement as to dose time mode of administration &c causes remedies to be neglected, as was the case with Conium after Storck. Tobacco after Withering Arsenic after Fowler &c &c.

Ferriar justly remarks that the management of a remedy is not to be immediately acquired requiring skill judgment, experience &c. Prof. S. in his first trial of Turpeth mineral as an emetic, nearly vomited his patient to death yet this is a safer emetic, by far than Antimony. Some physicians would have been discouraged by this first attempt & abandoned the article. A young phys. must not expect to manage ~~ment~~ a remedy as well as one of long experience.

We must adopt the nomenclature of natural history or else use two sets of names one for our knowledge of an article & another for the administration of it. Under the pharmacopeias which use the officinal names are compelled to use also the chemical & natural historical for explanation.

When but one part of a plant is used the part need not be mentioned. When but one species is used the generic name is sufficient

Abbreviations may be used for long names, but should not be ambiguous e.g. Sulph. potas. may mean Sulphuret or Sulphate potass.

Indeed the old names are merely old chemical & natural history names, which have been necessarily rejected

Prof. T. declares that it must forever be impossible to make a pharmacopoeia which shall not be 25 or 50 years behind the age. Both the last pharmacopoeias contain mistakes in botany older than the Linnean era e.g. Smilax

Sarsaparilla, ^was so called by Linneus, by conjecture, a North Am. plant ~~wo~~
It was soon found that Offic. sarsaparilla was the product of S. syphilitica & S.
of the river Cassiquiare S. America
S. sarsaparilla had its name changed to S. glauca, but the old name has been restored by our non-medical botanists.

Many of our chemical articles date their processes of formation from the time of Paracelsus & many things in those days was put into a crucible not knowing what would come out just as the Israelites put in their gold & there came out a calf! The black oxide of mercury for instance is made mechanically. The preparation of Antimony are perfectly inexplicable. Undoubtedly it would be better to use Antimonous & Antimonic salts &c.

The best pharmacopoeia is that of Holland (Ph. Batava) in 2 vols. 8vo. This was made by one man. At least 20 individuals might be found who would make a better one for the Uni-

ted States. Are can be made by any Delegation; N. York men object to Bostonian articles &c &c.

Lect 5. Proximate principles

1st Essential oils, including the volatile. They are 1st volatile 2nd fixed. Ol. menth. -ol. cin. camphor - are examples of the vol. There are many other solid ones besides camphor. Volatile oils are obtained by distillation. Fixed oils by macerating in ether & evaporating the ether. They are very numerous, yet but ~~two~~ of them are recognized in the books viz. ol. caps. & ol. piper nigri. Prof T. experimented extensively & failed but once ~~or~~ in obtaining a fixed oil viz. rhus venenata. Many articles contain both a volatile & a fixed oil e.g. cubebs (the fixed oil is the active principle), Liriodendron - piper nigrum - ~~&c~~. Xanthoxylum fraxineum (the fixed oil is active) probably also the magnolias & the ilexes &c. Piperine & Capsicin are inert.

Probably the Polygonums, Aroideae Ranunculi &c. owe their activity to a fixed essential oil.

The proximate princ. of dipterix odorata (coumarine?) used for scenting snuff (T. bean?) — appears to be "solid volatile oil like camphor.

All the oils which have been analysed contain hyd. & carb. some also oxyg. some also nitrogen

The properties are stimulant or nervine, or narcotic or both or all

2nd Resins are nearly allied.
/ Thompson observes truly that all the ~~fixed~~ volatile oils become resins by long exposure to atmosph. There is a difference of opinion as to the mode — some thinking that oxyg. is absorbed others that hydrogen is given up others that

Probably all these modes occur.

Prof. T. excludes the solutions in alcohol which have been called ~~by~~ resinous principles or resinoids

Resins are hard or soft The latter has completely resinified oil in solution in the oil. Resin of Copaiba is soft like oil — Resin of Tolu & resin of

2 [illegible] pine is intermediate. By distillation the ess. oil goes off & leaves hard resin.
When distilled without water there is an empyreumatic principle mixed e.g. Colophony. If Water is added we have white resin e.g. Burgundy pitch.
Balsams have no claim to be called distinct proximate principles. According to theory they are compds of resin & benzoic acid — upon this ground they would not be proximate principles. But the benzoic acid is a product not an educt of the decomposition, or of chem. processes. Some resins also afford succinic acid e.g. amber & copal — others suberic &c &c.
Gum resins are merely inspissated saps or extracts by decoction — Aloes with a vitreous fracture is nothing but ~~an old~~ watery extract by decoction.
The resins are deobstruents, stimulants or cathartics, irritants.
3° Bitumens — are next in simplicity & similarity of composition.
The Bitumens are 6 — naphtha petroleum maltha asphaltum & the two mixed bitumens

Mixed bitumens are perhaps resin asphaltum & bitumen carbo

Bitumen naphtha is some essential oil mineralized by the earth B. petroleum is naphtha partially resinified B. maltha is a solid, or thick essential oil B asphaltum is probably naphtha perfectly resinified. B. caoutchouc is not well understood. It is a mineral, & has never been used in medicine

Bitumen carbo consists of mineral resins &c. mixed with carbon

They are all (those which have been used) nervines & are perhaps not well understood. They relieve some cough, it is not known upon what principle

4th Greasy fixed oils either liquid or solid e.g. olive, nut, salad, almond rape seed, mustard, linseed, oils. Solid fixed oils are ol. of Cocos butyracea palm ~~nut~~ oil cocoa nut oil Bay oil (Laurus) oil of cacao (butter of chocolate ol. of stillingia sebifera or chinese tallow tree ol. of myr. cerif.

Thompson considers wax to be a concrete greasy fixed oil. not a resinified oil

All these consist of ox. hyd. & carb.

The fine glossy coat of flowers & the pollen, ~~was~~ seems to be wax. Yet the bees do seem to secrete it. and to collect the honey; & not as was supposed to secrete honey

The greasy fixed oils are all cathartic. That of Ric. comm. has an acrid principle which makes it more so. They are used mainly in pharmacy.

5th Caoutchouc is used merely for bougies &c. It is not well understood as to its composition

6th Salifying principles — of ~~three~~ four sorts

1st veg. ac. in a free state or in form of bi & quadro salts e.g. acetic oxalic, tartaric (which when in pure) citric, malic (sorbic) and the hydrocyanic. Acetic is contained in bitt. Rhus typhinum. Pyroligneous acid is impure acetic. Oxalic in sorrel, rumex, &c.

~~[illegible]~~ Citric in oranges, lemons, Tartaric in vines &c.

Malic in the non poisonous Sacce, g. Rhus.
R. glabra has more than any other veg.
Hydrocyanic is cont. in the order Rosaceae e.g. plum peach, laurel &c.
2nd in v. small quantities & in a state of combination e.g. gallic & mani &c.
they are the most numerous
3d products of decomposition, benzoic succinic, suberic. Generally nervine.
4th not sour to the taste, nor reddening blue veg. colours. Yet they neutralize bases. Their classification is doubtful.
Sugar is one of which there are many varieties is pure 6 car. 5 ox. 5 hyd. sugar of honey. sugar of liquorish. sugar of manna ~~than~~ Starch is another (called amidine) Gum is another.
Vegetable mucilage appears to be a variety
The first group are refrigerants. The second are not medicinal alone but are in compo. The third are nervines & perhaps have other prop. The fourth are demulcent

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6th Salifiable bases very numerous, 1st alkaline 2nd not alkaline. The limits between these two is not distinct. 3d crystalline & neither alkaline nor unalkaline. Specimens of these ~~last~~ are very numerous, - cinchonin, quinin, delphinin, cephaeline (emetine) coffeine morphine - jalapine - narcotine - picrotoxine (cocculus suberosus, called coc. ind.) strychnine, veratrine, rheine, sanguinarine &c. Dr. L. admits but 2d.

4th There are very many more. e.g. in opium we have also narceine & meconine.

The names of these ended at first in -ina and were applied by physicians. The chemists have changed the termination to -in which is always too near & sometimes the same as the ~~[illegible]~~ names of the plants themselves. The pharmacopoeias have rejected the change - except the two United States phar. !!

Hyd. Nit. carb. & ox. is the composition of them all

These are the most important of all the principles

one of the most important advantages is the permanence of their strength. For instance bark is of 25 species, varying in strength and some very weak. Veg. also lose their strength by keeping &c.

There are several principles not acid nor alkaline e.g. conein, (doubtful) aconitin, cantharidin, colocynthin, elatine, tygline, cytisine. There are very many of them and most are medicinal, all of some powers. Some have no medicinal powers. Some have been found to be acids or salts, e.g. Salicine is Salicate of Salicine. Lupuline is a compound & has been well known this thousand years. Prof. T. recollects seeing an alcoholic tincture of this yellow powder used in his father's family.

Colouring principles are not well understood. They are often other principles.

Gluten & Veg. albumen are incapable of classification & are not medicinal

Incompatibility medicinal & chemical. Medicinal physiological or pathological incompatibility is the conjunction of articles proper in opposite states of the system e.g. nitre & alcohol, tart. ant. & alcohol nitre & bark &c.

Chemical incompat. is where a new product is formed by the union, which we do not require, for sometimes, as in the mistura ferri composita, it is the compound which we wish

It must be remembered that when the action or union which takes place is between the inert parts of the remedies, the two are not incompat.

Neither when by composition the properties of the active articles is not changed, have we an example of inc.

Examples of chemical incompat. are Muriate of soda sh^d^ not be used as diet when nit. sil. is given neither should tannin or gallic acid, for the resulting chloride of silver & gallate of silver are inert.?

There are very many instances in which composition does not change the medicinal properties. A good example is iodine. If you give enough of the acids or salts of iodine to get a dose of the iodine you have the effect, as a general rule as from a dose of pure iodine.

Bromine is supposed to be another example. Gold is another instance you may give it in (precipitated) minute division, or in its oxides or salts. Platinum is similar. Prof. T doubts whether this is true of phosphorus. Certain phosphates of ~~soda~~ lime &c. are inert. Iron is an instance. Crude antimony is inert, so that this is not an instance.

This is remarkably true of ternary & quinary compds e.g. carbon & nitrogen are each inert: but Cyanogen is active in all its compds. Arsenic & oxyg. are each inert: but Arsenous acid & the Arsenites have the same properties.

Those most subject to this law of the inertness of their element & the

activity of all their compounds, are the vegetable salifiable bases. One exception is said to exist, with respect to their union with iodine & bromine. It is said also that their carbonates are weaker. Combination with gallic acid renders some of them more stable (the active principle of Veratrum is a bigallate of veratrine.)

Gallic acid decomposes the quinates of cinchonine, and forms inert compounds, hence astringents containing gallic acid, are incompatible with cinchona. Tannin however is compatible. Anecdote of an able physician having learned to make cinchona, not disagreeable to taste in this way.

Vegetable astringents containing gall. ac. seem to be incompatible with menisperm. canad. for the sourness of one & the bitterness of the other are destroyed. This is undoubtedly true of Cocculus palmatus (Columbine) a similar bitter & tonic.

Cinchona is well known

to be chemically as well as medicinally incompatible with tartar emetic. Still tartar emetic is not incompatible with cinchona for its tannin decomposes & destroys tartar emetic which tannin is not an essential ingredient of cinchona. 1 fl. oz. of infus. cinch. will render inert ℈i tart. emet.

It is universally said that arsenic is incompatible with cinchona. Prof. S. denies this as a fact, & thinks it improbable primâ facie.

There is no doubt that the vital powers often prevent decomposition, yet the laws of vitality in relation to this have never been satisfactorily investigated.

We are not to expect that decomposition will take place, ~~when the~~ in the stomach, when the action of the articles upon each other requires considerable time. Case of a physician in N. Y. State prosecuted for giving (not only brandy & opium in acute fever!) but nitric acid & pills of black oxide of mercury. Now it requires about 12 hours for these to unite and in addition to this the ensuing nitrate of mercury is but about half as strong again as calomel!

The general conclusion is that articles which, produce chemical reaction when mixed, are not from this merely to be considered as chemically incompatible as is too commonly done in modern books of M. M.

Rules respecting the parts of plants which are most active & the time of gathering them

Of annual plants the leaves are generally most active: sometimes the seeds alone are active occasionally the flowers. The stems have but little the roots generally none

As a general rule when the activity resides in the descending sap, especially if coloured or milky, the seeds may be expected to be inert e.g. poppy & sanguinaria. The seeds of the last however are said to possess other powers

Plants sh^d be gathered when their vegetation is most vigorous. Co-

num is an exception, the leaves of which sh^d be gathered when the seeds are ripe

Flowers sh^d be collected as soon as they are expanded. & seeds when they are ripe. Some seeds, as those of masterwort however, sh^d be gathered as soon as little formed. The seeds of masterwort when fully ripe are not very narcotic

Biennials have roots & stems of rather more activity. The roots sh^d be collected in the second year, and the rest when the first top dies. The leaves & stem in the 1st year

Perennial roots sh^d be collected in autumn after the tops have decayed. This rule must have great influence especially as plants are generally collected by unprofessional persons. Prof. T. was disappointed in Sanguinaria, for this reason, at first gathering it in the . Others have been also. So of Actaea, which many have condemned for this reason. Case of Charles Perry. He had been in the habit of taking for rheumatism, in Hartford, about a table spoonful of a shop tincture made of plants gathered in the wrong season i.e in the spring. At Castleton he was nearly killed by their tincture

Barks of shrubs & trees are to be collected when the leaves are dead.

Fruits generally when ripe — sometimes when green.

Evergreens at any time but best when the veget. is most vigorous

Plan of the course. This is to treat of each article under the class, in which its most prominent operation belongs.

It is very important to consider the properties of remedies in their connexion — or else we shall not understand the prominent operation e.g. ipecac & tart. ant.

Although one ~~article~~ operation is the foundation of a class, yet articles of one class and of one operation only, are by no means equivalents for each other. Still less, then, can we consider as equivalents those which have ~~of~~ other operations besides; and thus also it will be impossible to understand any remedy by knowing its prominent operation

Almost all the difference between wisdom & folly depends upon discrimination

Sweating, affusion of cold water

bleeding, emetics & cathartics, break up fevers for instance but under what circumstances is one preferable to another. Cold, astringents &c &c. arrest hemorrhages, but when is one of them preferable!

Knowledge of this kind is not to be found in the books, so much as it ought to be

Previous to the consideration of particular remedies it will be necessary to consider various physiological & pathological conditions which influence their administration

Temperament. – consists in the peculiar bodily qualities of an individual

Two general divisions, irritable & torpid irritable are sanguine & choleric

Torpid are melancholic & phlegmatic

1st Sanguine, hair soft flaxen, not much curled Eyes blue, complexion fair. Stature often considerable pulse soft full, & frequent Skin soft smooth & delicate. Muscular strength moderate Circulation &c secretions & excretions easy Great irritability Constitution delicate. Solids are small in proportion to fluids. Blood copious. Mind receives quick & strong impressions but is variable in its purposes.

Sanguine temp. — mind quick cheerful, disposition ardent & voluptuous. Susceptibility very great — high enjoyment if ^(exc)
The most common diseases are [illegible], and inter[illegible] ^(sdhs. of circulation) [illegible], [illegible]
Said to be more [illegible] [illegible] diseases. It is merely more susceptible to the causes of acute diseases, [illegible] or [illegible]

Choleric — hair brown or dark ^(curly), eyes dark ^(& grey), skin rough & dark, ^(quick & fiery) ^(little colour in the face) [illegible] small — muscular strength considerable
Pulse quick full & moderately strong
Muscles firm but not rigid

Internal susceptibility nearest to sanguine
Disp. ardent, ^(hasty) bold ^(cruel) daring, not cheerful ^(able)
Said to take on febrile diseases oftener & probably with truth

Phlegmatic — skin white, dead, ^(no hair) blood-vessels small — much serum in blood — stature bulky — hair soft whitish or sandy
pulse weak & slow — circulation lan[guid]
imperfect secretion — little muscular

strength or bodily activity - muscles soft & flaccid. Secretions scanty.

Sound slow but steady, calm & dull.

Dispos. good natured - capable of passive courage - often cowardly, or avaricious.

More subject to diseases of torpor and glandular obstructions - struma dropsy &c.

Melancholic. hair dark, hard, harsh straight or much curled - eyes black or dark - skin dark, or yellow, with much hair, rough & coarse - pulse slow & hard. body meagre - solids rigid & strong - blood abounding in gluten.

Mental Const. borders upon the phlegmatic.

Disposition grave severe constant not irascible - when provoked not easily pacified - melancholic, ardent capable of earnest mental application - often with strong powers of mind - often [illegible].

Peculiarly liable to disorders of digestive organs, such as flatulence, melancholia, hypochondria, costiveness, dyspep.

John Champ, the spy selected for the capture of Arnold is a good instance.

Occasionally individuals are found answering to one of these descriptions perfectly. but generally there is a mixture of the temper.

Constitutional and Family tendencies also influence the practice of medicine.

Sir Gilbert Blane quoted at some length in favour of generous diet, animal food, wine and beer in scrofulous habits. Case of a family, half of whom were fed generously, & half sparingly.

Hydrocephalus internus, which is nothing more than scrofulous inft. of the brain; regular struma, hip disease, tubercular phthisis &c. &c. are often produced in scrofulous persons, by the present fashionable mode of treatment. ~~Ophthalmia is also~~

Scrofulous persons will not bear half the reduction that others will even in inflammatory diseases, acute, articular rheumatism. Great mischief is also done in ophthalmitis - the disease made worse. Case of a young lady, sick 5 or more years, with it cured by Tully in a few weeks by generous diet quinine &c.

Case of two scrofulous brothers, excessively fatigued, after a fire. A physician was called who advised a dose of opium & a glass of

brandy & ling. One refused

Case of another of a family with ophthalmitis. He could be cured by Dr March, but from carelessness, ^unwittg relapse. He went to N. Y. Was bled & purged for some time: died

The ancients are said to have required 4 times as large doses. Doubtful

The Italians require less doses than the French. These than the English & the English than the Americans

Idiosyncracy is important It is not a mere difference of susceptibility which varies even in the same individual For instance, if a single grain of cal. produces purging or salivation, it is merely a proof of greater susceptibility

In idiosyncrasy the operation is different in kind — for instance if opium purges, as is occasionally the case. There has been a case of this kind in this neighborhood

Opium is the article with respect to which idiosyncracy is supposed oftenest to exist. Yet though, difference of sus-

ceptibility is very common ~~yet~~ Prof. T. has never met with a case of genuine idiosyncracy. Case of supposed idiosyncracy — a lady — Prof. T. mixed equal parts of Laudanum & Spt. peppermint. the latter of which is one of the very best articles to cover the taste of ~~such~~ others. Case of the same person, with a typhous fever.

Prof. T. could relate similar cases with regard to iron, peruvian bark cathartics, emetics &c. They are merely cases of great susceptibility, which require small doses, great care, & peculiar management. A Frenchman's imagination will be equally active against calomel! Indeed the whole French nation may be said to have an idiosyncracy against calomel!

Case of a woman in Charter-ury. Her phys. gave her pills which contrary to her supposition contained opium — she took them with great benefit for a week. Her phys. accidentally let her know that she had all the while been taking opium & she immediately turned over & began to vomit, uncontrollably. It is very diff. [illegible]

Pulse. Prof. T. considers it as very certain that Hippocrates knew little or nothing respect to it. His follower Praxagoras was the first to attend to it.

Prof. T. has often seen the motion of the arteries at many feet distance in opposition to the modern doctrine of the passiveness of the arteries.

Pulsation he thinks is produced by a wave of blood. The wave produces the systole & the contraction of the coats the diastole.

If the pulsation is merely produced by pressure, it would seem to indicate only the varieties of that pressure.

Probably, & indeed undoubtedly, the large arteries do not pulsate.

Under the term pulse we include all the circumstances of the circulation, which can be distinguished by the touch.

Vital power is probably always unequal in disease. In phlogistic disease the arterial part of the general system has increased action

We cannot depend much upon the pulse in infants owing to their irritability. We cannot depend much upon it in old age. In the insane the state of the pulse depends upon that of the mind, rather than the latter on the former. — especially in a paroxysm.

The circumstances which influence the state of the patients pulse, are sex, age, occupation, position, state of mind, approach of the physician.

The phys. should always sit awhile — & should feel twice — relaxing the arm — forbidding talking — counting more than ½ of a minute — using two fingers — always the radial art. which is of more uniform size & which we get accustomed to. In the other arteries we can judge of nothing but frequency. Still it is well to get accustomed also to the temp. art.

Dr Rush thought 3 or 4 fingers better — but in that case there is a confusion of impressions — different [illegible] of the artery, &c. to [illegible] mislead & perplex

us. Dr. Rush almost wished that the Chinese rule of compelling the phys. to prescribe from the pulse, was in force. Prof. S. agrees to this.

When the other symptoms are good, it is no indication, in general of danger, if the pulse is bad, except in severe and malignant diseases. The pulse is of less consequence in chronic diseases

Prof. S. thinks there has perhaps never been a person since the dark ages, when it has been so much the custom to prescribing to the name of a disease though there is abundance of declamation upon the subject. Vide Gregory who makes apoplexy a unit. It is the fashion also to consider inflammation as a unit.

+ Frequent

It is often vaguely called a high pulse

A quick pulse is a sudden stroke, ~~or~~ a stroke made in a short period of time sometimes called jerking

A strong pulse. cannot be felt readily in

A full pulse. is when a

A hard pulse is when the artery is felt like a tense cord. It is called often a tense or corded pulse. Hardness quickness & smallness, make a sharp pulse

This must not be confounded with the rigidity of the arteries in farmer & old ~~pulse~~ people

A fluttering pulse is weak quick & irregular

A gaseous pulse is

An undulating pulse

A creeping pulse is undulating & small

A depressed or oppressed pulse is when the ~~art~~ pulse is preter strong somewhat contracted pulsation indistinct & perhaps the diastole does not empty the artery

This pulse must be judged of by the other symptoms accompanying

Prof. C. has frequently met with a variety of the undulating pulse, in which

An obstructed pulse

A shattered pulse feels like a split quill or a bundle of cords of unequal tension. It is very remarkable. It occurs

Low is too indefinite a term. It is never applied to a frequent pulse. It is some-times applied to a small & hard

Irritation is a difficult quality to distinguish. It is often mistaken for strength and thought to contraindicate opium &c. which are the very remedies indicated

Indications from the pulse

Great frequency always indicates a low state of the vital energies. It may accompany the undulating the

Frequency must be compared with health, yet the healthy pulse is most frequent in the morning, while the exacerbation of fevers (with the exception of F. Syncopalis) occurs in the afternoon

It is too generally said that increase of frequency indicates increase of action i.e. of entony. There is great confusion in the use of language, upon this subject

A short quick beat of the pulse in rosalia & some other fevers indicates a g

A quick small & hard (wiry) pulse merely indicates atony and irritation combined and may be removed by antispasmodics. It is often produced by irritating remedies in pneumonia, dysentery &c. It may be caused by excessive doses of

acrid essential oils producing cholera

Entonic phlegmonous enteritis is not, as authors say, always accompanied with with a weak and wiry pulse. On the contrary the pulse is hard & strong although small. In erythematic enterites the pulse is the same but weak

Preternaturally infrequent & slow pulse is found in Paresis, inirritative synochus, soporous Hydroceph. &c.

Intermittency is of less consequence than other qualities

The pulse of health resembles that of atony more than entony. The pulse of health is no indication of entony.

Irritation always, perhaps, accompanies disease, both atonic & entonic.

Diathesis

Is in its widest acceptation is a peculiar condition of the whole or part of the system -

It includes hence the const of fam. tend and the predisposition in epidemics

The most important is that of the arterial system

It is universally admitted that the two diatheses entonic & atonic exist with the exception of a few who deny that asthenic diathesis exists in acute diseases denying the justice of Cullen's distinctions in this respect. They say that the debility spoken of by Cullen in fever does not exist.

Prof T. limits the term entony to the state indicated by the strong & hard pulse

1st Increased frequency cannot be considered an indication of it & in truth has nothing to do with it. In cases 110 or 112 (Fordyce) or at the most about 115 is the limit of freq. and the majority of severe acute diseases have a pulse more frequent. 2nd Increased heat of skin also is met with in the most sunken atonic diathesis - as in [illegible] where the heat is excessive both there on electrical & calor[illegible]

which the pulse may be a mere flutter.
2d Increased muscular power also has been met with in cases of yellow fever, where the patient is pulseless also in delirium tremens where there is no pulsation, and the skin cold — yet requiring 4 men to hold him & may spring from them & fall dead on the floor. In infl. of the brain the pat. often (generally) very weak. Increased mus. act. is merely the result of irrit. of the brain.
4th Spasmodic muscular action has also been mentioned as a test, but this in truth does not accompany entonic disease.
5th Increased secretion, is entirely fallacious, as a test. The mouths of the vessels may be relaxed from atony as is recognized by Good. — Is leucorrhea necessarily entonic? In the last stages of phthisis, the pat. may expect. 2 quarts a day.
Entonic pneumonia has generally a slight secretion.
6th Pain is often nervous & in 9 tenths of the cases has no connexion with phlog. diath. Yet some always bleed for pain
7. Mental exhilaration also exists often in some of the lowest & most malignant atonic diseases. Prof. T does not believe

it ever occurs in phleg. diath.

8. Delirium belongs to almost 3 non-febrile diseases. Sr Smith says he has never seen a case of mania violent, with entoric diathesis. In phlegm. cephalitis, however, there is delirium. So also in cases where about to pass into entonic cephalitis

Equally false notions have been entertained about debility considering it as muscular weakness &c.

Tone of health is a different thing in kind from entony of disease. In judging of diath. disease must be compared with disease.

Debility is of three sorts 1st that exhaustion which results from starvation ill-ness of blood, &c. & which is injured by stimulants.

2nd that deficiency of vital energy which is produced by narcotics, poisons, vapours, & the most frequently upon the accession of an acute malignant disease. This is not accompanied with exinanition and may be cured immediately, or soon, by stimulants & especially stim. narcotics.

3d deficiency of vital energy in the art. syst. which may exist with considerable, or even increased, muscular strength. The patient may even be weakness.

about when pulseless, and in articulo mortis e.g. walking cases of yellow fever of jail fever &c.

4th rarely but incorrectly applied to cases of oppressed pulse, which may removed by bleeding, and the strength [illegible]

This is more properly a state of prostration in which the vital energies ~~are~~ latent, but not extinct. (like a spring oppressed)

In the commencement of non malignant diseases we may have a mixture of both exhaustion and prostration

Prostration in atonic diseases may be relieved by tonic emetics, as sulph. zinc. and ipecac - and is neither increased nor diminished by stimulants & tonics. In certain diseases prostration is increased by stimulants.

In the exhaustion [illegible] [illegible] sync. a deceptive feeling of fulness [illegible] in the pulse ~~[illegible]~~ - a jerking & bounding [illegible] within a few moments of death

The hypothetical Brunonian distinction of direct & indirect debility seems to have no foundation & to be useless if it had

What is the ~~debility~~ difference between

the debility of an ulcer from fire & that from frost? The distinction from cause merely, is calculated to mislead. The distinct shd be from the nature of the action

Besides the condition of indirect ~~d~~ debility from stimulants does not exist in atonic diseases unless poisonous doses are given

Brown also deduced his opinion from the prostration of wine alcohol and opium — which if given in excessive doses produce no stimulation. (those of Brown's cases of ind. deb. are [illegible] direct debility

We have then exhaustion of two kinds 1st that of inanition 2nd that of atonic malignant diseases, & in ~~poison~~ poisonous fatal doses of ^

These distinctions of diathesis seem to have been intended by many of the old schools even by Hippocrates. The hot & cold the wet & dry medicine, seem to have had reference to them & even the mechanical sch

Some of Cullen's followers used the term hysteric & hypochondriac diathesis

By the former they intended a state of atony combined with irritability, mobility & susceptibility & by the latter one of atony combined with torpor

Tone is a natural & healthy degree of vigour in the performance of the function.

Entony is a morb. deg. of strength & vigour of the vital powers in performing the functions

Atony a morbid diminution of vital energy in the performance of the function.

Diathesis continued

It is necessary to bear constantly in mind that authors use the term hardness for strength. Strength is resistance to pressure. Hardness is merely a wiry feel, both in the systole and diastole, and may yield readily to pressure. . . . Flushed face throbbing of carotids laborious respiration &c. may exist in connexion with feebleness of pulse and even after circulation has ceased at the extremeties

There are both entonic and atonic phlogotica & exanthematica. It is much more doubtful whether there are any entonic than atonic exanthematica, for most if not all of the exanthematica are synochus, – small pox for instance. This synochus is what they Clutterbuck & Armstrong call simple typhus.

The term inflammation is no more to be regarded than the term fever

Animal heat has been supposed to be great in proportion to the vital energy. Perhaps this might be a good discrimination if calor mordax were not confounded, and thermometrical heat be understood. Yet Prof. T. believes there are cases of inflammation gangrenous in their tendency from the first which are accompanied with high thermometrical heat.

Entonic deafness is not liable to be mistaken for atonic. Yet atonic ~~fev~~ fever especially typh. fut. is often mistaken, even by good phys. for entonic on account of the very hardness communicated by irritation.

Prof. T's attention has been particularly turned to the detection of other symptoms than the pulse. There are very few if no certain ones but the pulse, in entonic

Atonic Infl. has a duller, more livid colour, skin nearly natural in colour perhaps or crimson, less sore less swollen generally, something more, so — matter thin ichorous &c. — Surface covered with vesicles ^ There is either less heat or a calor mordax

Acute atonic infl. may occur & often be rapidly formed—even in 24 hours. Such cases occur when a person has been much reduced by disease. Slight causes. opium—wine—brandy vigorously. Dr. T. Rushton & them occur in the liver of dyspeptics.

Phlegmonous infl. from local violence, is often atonic & relieved by opium—which unequivocal idiopathic phlegmonous infl. will not#

Some however call these hypersthenic or more entonic because they require more depletion to reduce them. But Prof. T affirms that they will recover better under an exciting & supporting course. This question has been tried out in Tropical hepatitis & pneumonitis, & it has been shown that those have succeeded best who considered them as irritative & not entonic, and gave calomel opium & other deobstruents. Now the hepatitis of our climate would prove fatal in 999 cases in 1000.

Atonic diathesis is the most common and most extensive

This seems to depend upon a state of irritation.

In the times of Morton & Sydenham a change of diath. from atonic to entonic took place

Just after the Rev. war a similar ~~case~~ change to an entonic diathesis o

The typhus &c. ceased then

Beginning about 1805 & extending to 1810, in ~~___~~ a considerable part of our country, the change was from entonic to atonic. I

Indeed about 1800 a general change to atonic diath. seems to have taken place over the world. This is evinced by the malignant pneumonias cholera, the cases of low atonic inflammation

This diath. has not reached N. Holland, where they have never had an epidemic. All extensive malignant epidemics are atonic.

Sydenham has explained better than any one else the subject of epidemic influence

All the cases of the same epidemic are of the same diath. in kind Synochous not entonic cases will be the intercurrent ones

The local affection accompanying an atonic fever is of the same diath. This is important to be known. For hence we are never to treat the const. aff. as atonic and the local as entonic

There is perhaps no such thing as a general diath. which is neither entonic nor atonic These cases however are more liable to occur, in an atonic diath. than in an entonic

☞ This distinction of the same disease into two kinds according to diath. is scarcely recognised by authors except in pneumonia & peripneumonitis. In peripneumonitis we have two diseases, distinct from each other Eryth. periph. establishing a distinct disease Distinct & confluent small pox are mere varieties of the same disease, running one into another — the ~~latter~~ former is sometimes atonic

Cephalitis 4 sorts 1 ent. 3 at.

1 ent. is phrenitis of the books — It affects all the 4 stages — now uncommon from — 2 eryth. infl. of memb. of brain — fever typhus — varies from synochus to pyotria — most common at present 3 arthritic infl. of brain. affecting all the textures — It affects all textures? — may or may not be by metastasis — may be entonic but now it is atonic

60 chronic
4 strumous infl. of brain which is always atonic

Pneumonitis may be 1st entonic phlegm. of Cullen which aff. all text.
2nd eryth. infl. of bronchial membranes always pneumonitis putrida or bilious pleurisy. It may vary from synochus to typh. grav.
3 atonic phleg. infl. of membranes called pneumon. nothus. aff. bronch. vess.?
4th strumous, tubercular phthises
5 arthritic
6 aton. phlegmonous of Tropical climates
These are all well known but are not always all found in the systematic work. They constitute specifically distinct diseases.
All diseases not phlogistic must in their continuance become atonic

The distinction may be diffi-cult ~~true~~ in phlegmon ophthalmia, or chi tis, & some other local inflammations, ~~between~~ whether the infl. is entonic or atonic. Prof. T. however has not found much difficulty. It is not true that the vig-orous & robust are more liable to phlogis-tic disease. Some of the lowest cases occur among them. Yet it is laid down by a

rule almost to bleed a man <u>because</u> if he is naturally vigorous & robust. They should be bled if their symptoms indicate it and not without

It was formerly supposed that all evacuating articles were reducing, this is now known not to be the case

In acute atonic diseases bleeding is never necessary. It may be admi-
|| ssible in subacute & chronic, to increase susceptibility. But should then be followed by efficient counteraction and support

Diathesis does not <u>cause</u> a disease. It cannot be said with propriety that a particular diathesis causes diseases. Rather say that diseases when they occur take on more or less of the prevailing diathesis

Congestion

Accum. of blood in ~~par~~ particular parts is believed to be always a mere effect & not a cause of disease and therefore of little consequence

The heart is the sole organ agent of the circulation. The press. of atm. is a powerful antagonist to the heart in filling the capillaries. This is proved by a cup which produces congestion. This is attempted to be explained 1st by expansion of the liquid 2nd by that of the air within the system But liquids are not compressible & there is not air enough.

Various pathological phenomena prove the function. The brain & next to this the thoracic viscera & after them the abdominal viscera are protected from the atm. press the object of protecting the encephalon by

Infl. occasions congestion independent of atm. pres. & of the act. of heart

Local atony also

Action of the mind causes congest. in the head. But this is doubtful. Mechanical also in a paroxism has the same effect.

5 ways of producing cong. 1st "simplif." cong. prot. inc of act. of heart
when extreme it is in the brain as well as in the skin because of bony cord,
always in tonic
Cinnamon is a good in stimulus

Reduced by weakening the heart by the v.s. — also by nit. pot. & ac. pl.
It is well known that in all the inflammatory phlog. the superf. cong. does take place — appearing from the sense of fullness distention &c. — relieved by the inunction
Bleeding relieves not by reducing the mass but by weakening the heart, — the blood is determined from the surf. to the internal viscera — as proven by the efficacy of nit. pot.
In atony moderate bleeding seems to increase the position bl. head does the rel.
Bleeding carried too far produces Cong. of 3d kind & this is often done
2nd "general superficial" paralysis of capill. Always in the atonic in the highest degree — S. Lyne.
Rosalia. Int. of bod. almost absolute
Almost "always useless". Most powerful stim. & they destitute of blood — checking ...
"are only palliatives"
sanguineous, ...

[illegible] pass [illegible] pale

"General viscerall cong:" [illegible] cerebral & thoracic & next abdo[illegible] [illegible] act. of heart is [illegible] & atm. pres. preponderates. [illegible] &c. Hemorrhages Diseases of heart [illegible] by [illegible] of the heart & [illegible] generally

The more the heart is weakened the less able will it be to fill the capill. and the greater will be the conges. of brain & [illegible] of [illegible]. Brain suffers most

[illegible] press. is the sole agent of circ. Prof. thinks there is [illegible]

Good says that the more [illegible] taken away the more there is local congestion &c. and deceptive fullness & force of pulse

[illegible] says it is common, & in his experience universally the case that excessive depletion [illegible] causes det. to head, even apoplexy

[illegible] says that local deter[illegible] is not [illegible] a cause of [illegible]. Bled to death gradually [illegible] have cerebral conges [illegible] shown by dissection. He says he has dissected [illegible] lost their lives by [illegible] uterine hemorrhage [illegible] the art. [illegible]

to the head but [illegible] the [illegible] older
&c. [illegible] the [illegible] [illegible]
more frequently, he says, is the case in low stages
of fever there is the most congestion

6. Piorri says that after death
from haem. cerebr. ves. are full — says
many have [illegible]d to death.

Bonner — case of epistaxis
upwards of 35 lbs at a few bleedings — some
facts of consid. in p— — musc. strength toler-
ably good to the very last — not immediately
before death he could raise himself in bed
when there were but a few ounces of blood in
his body. were it not for excessive sickness
— pulse rose after bleeding — (i.e. quick jer-
king)

James Johnson — in an an-
imal bled to death for experiment — from
the jugular — brain & spinal marrow — so
full of blood as to indicate bleed[ing] — brain
also contained water. He says any one
must have seen watery eff. in the chests
in pneum. with typh. fev. — for bleeding
carried too far. He remarks on the rage
for [illegible] quant. of blood in fevers.

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It must be remarked that the ~~a~~tonic action so called, is in fact irritab. Prof has often had occasion to notice - & has ~~always~~ always found it weaker. In atonic phleg. enteritis for instance, the smallness diminishes, the art. becomes fuller & still resists pressure less i.e. is less strong - This also is called a rise of the pulse
In erysth. enteritis bleeding will, likewise remove the hardness but weakened the force.
Wiriness may be produced by irritating ~~~~ e.g. dysentery which will not
~~~~ calomel - cal. will produce wiriness
The nervous disturbances caused by hemorrhage is not Prof. S thinks, produced by irritation pressure on the brain, as Copland thinks, but irritation from inanition takes place ~~~~ and starvation. There is ~~~~ position

4 Paralytic cong. in any part - by diminution of tone & deficient resistance to vis a tergo ~~~~ is atonic
~~~~

5 in any part by infl. of any species, either entonic or atonic according to the atonic or entonic character of the infl.

Congestion is essential when it occurs invariably — accidental when not occurring.

Recapitulation

4 sorts of congestion. Simple or perpetual cong by increase of strength of heart — a tonic — requir

2 Simple visceral congest by diminution of strength of heart atonic requires invigoration

3 paralytic conges produced by weakness or relaxation in a part or in its vessels, requires invigoration especially local it may often be relieved by a c. pl. assisted by stim of atonic

Infl. congest. produced by topical infl. either entonic atonic or irrit. requires reducing th or debil

It is common to consider various articles as tending to produce cong. e.g. cinchona quercus cornus, tonics &c.

But Prof. S. thinks none can act by increasing or diminishing the strength of the heart or producing head paralysis &c.

above notion is incorrect. No tonic can be congestive except in Cannabis

Narcotics can be made congestive when used improperly. The antiphlogistics e.g. blood letting & nauseating the use of tart. ant.

Writers talk much of congestive fever as if it were a specific disease. But is there a fever which is not congestive? Prof. S. has never known one. Those gentlemen who have kept up their with the progress of the prof.! do in fact bleed in every acute disease - antimonials stimulants & irritation! Witness bleeding in spasmodic cholera

The pupils of Cullen who considered congestion as a very unimportant

matter [illegible] diseases much better than the present phys.

Congestion requires no peculiar treatment when the disease is general and the existing symptoms cannot require

The following then are the guides for our prescriptions 1st general condition of system.

2 existing symptoms

3 known laws of the disease

Degree of preserving the brain etc cause is unknown. We know no more of it than we do that of secretion or gravitation or the substratum of matter

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Type

In some ~~[illegible]~~ peculiarity in appearance those only will be treated which influence medication. The symptoms peculiar to the type will be mentioned

Putrid type

violence of attack

Nervous types - Typh [illegible]
[illegible]
[illegible]

Preparatory Treatment

(From Talcott's notes)

Preparatory steps are sometimes necessary, such as depleting or exciting the arterial system — purging or restraining diarrhoea — equalizing excitement — removing pain & irritation or obviating torpor — allaying heat & dryness or checking the profuse perspiration of the skin &c. Such preparation seems to produce a semi critical change, lessening if it does not shorten the disease.

If such preparatory treatment is improper the disease is aggravated.

This preparation to effect a cure is analogous to predisposition in bringing on a disease. Thus at the approach of the ordinary term of uterogestation a full bleed, or free catharsis &c. prepares the system for the operation of the [illegible].

If the minor points are overlooked the phys. is apt to be disappointed in his principal indications. This is a great cause of difference of opinion among phys. as to particular modes of treatment. In typhoid cases it is highly important to keep up a uniform artificial excitement.

Additions to Diatheses
(From Jackson's notes)

It is erroneous to suppose that acute phleg. infl. are always entonic. They are never so when the state of the system is atonic, unless the local infl. is trifling. I know not a single exception to this important rule.

Infl. from mechan. violence is often atonic, depending on irritation & to be relieved by opium. I call this kind irritative infl.

Local affections take the grade of action of the general affection #

In the atony occurring in malig. acute diseases also produced by bites & stings, by lead & mercury, (narcotic poisons carbon. acid, lightning &c.?) there seems to be a sudden suspension of the secretion of the sensorial system. Hence there is no rigidity of the muscles after death or coagulation of the blood.

Example - In Middlet. during the prevalence of t. sync. I dressed an incised wound simply as usual, but

found after 7 days that it had not healed in the least — no suppuration of any consequence — Various applications failed till finally I succeeded by basilicon charged with verdigris which produced sufficient inflammation.

Sydenham is the best author on sciatica.

The pulse of health is not the standard by which we judge of pulse in disease.

The heat of Causma is thermometrical — not so of calor mordax which leaves a stinging sensation on the hand.

All chronic cases are not atonic. There are of some of the exanthematica which are attended with Causma.
Heat, soreness, pain &c. are supposed to be greater in entonic cases. But it is often otherwise e.g. orchitis — ophthal. &c.

No infl. except the phlegm. & arthritic is ever entonic. Phlegm. infl. may be entonic or atonic or intermediate. Erythem. infl. is neither never entonic but atonic or neither. Arthritic is atonic with us but in some places is entonic.

A change from entonic to atonic occurred here & about this time all over the world apparently — except in N. Holl. — The diath. there is entonic & there has been no epidemic there for 40 years

The atonic diathesis is that of [illegible] i.e. Cholera of India & believe the same thing as T. Sync. (1830) Under this diathesis we meet with the variety of small pox which attacks those who have had the disease before. Distinct small pox is generally entonic But I have seen many atonic cases.

During the prevalence of one diathesis diseases of the opposite grade of action are rare & less strongly marked

The robust & healthy suffer more severely than the feeble from either entonic or atonic diseases. Popular opinion is correct on this point & the usual medical one wrong

It is laid down in books that the robust & healthy will have entonic & the feeble atonic diseases — but they are both subject to the diathesis.

Fatuitousness & Pneumonia are the only inft. which authors will allow to be atonic

Crisis

All fevers have paroxysms the continu-
ance to be have them daily

The majority of phys. are believed
to be in favour of the opinion that fevers have
critical days. The greatest discordancy and
difficult

Rob. Jackson (Jamaica) 1st is quoted.
final crisis in odd natural day 2nd the
[illegible] takes place in an even natural
day if the type is [illegible] even day.
Continued fevers observe a tertian type
The [illegible] the [illegible] & confusion of the
moderns is owing to false reckoning

Continued fevers [illegible] thus
[illegible] observe certain fixed periods 7th 14th
20 or 21 are the most important
of secondary importance 3d 11th of still
less consequence than 5th & 9th It is perfect-
ly incomprehensible to him how the 4th could
have [illegible] considered critical except by
the patient's dying on the 4th. i.e. the
patient may survive [illegible] days after the crit-
ical sinking.

The subordinate periods are of
more consequence in a 7 day [illegible]. [illegible]

The puls. begins to commence or rise &c at these periods. This explains the mistake of those who do not believe in the breaking up ... of disease. It is in these days that the effects of the treatment show themselves. It is to be observed, that t. sp. c. t. icterodes &c. may destroy the patient in the first paroxysm.

A 7 day disease may run on to 14 days. A 14 day disease cannot run on ... than to the 21st. After this we have merely a state of irritation for debility.

"Crisis" denotes judgment ... a period when a sudden and remarkable change enables us to form an opinion

Hemorrhage sweating, purging, vomiting, purging, abscess, sediment in urine &c were believed by the ancients to occur certainly on the critical days. Eruptions, (in small pox) buboes, &c were imperfect crises and assisted us in judg... of the fever, as did other symptoms tongue &c. This doctrine is undoubtedly true if their moderate and inert treatment with respect to entonic & typhus fevers both. But in our mode of ... manage

ment, these violent critical ~~treatment~~ changes cannot occur and we must look out for slighter changes. Prof. J. does not recollect a single symptom so referred to by Hippocrates which we do not cure as well as prevent. Their spontaneous haemorrh. is prevented by our bleeding, their purging by our catharsis, their sweating by our diaphoretics.

In a crisis the countenance assumes a bright and animated aspect, the eye brighter, ~~pulse~~ pulse changes, the general changes so. respiration improves, morbid evacuations become natural — thick or muddy urine (high coloured also) ~~deposit~~ deposits a sediment on standing &c. In a fatal crisis the reverse takes place.

Prof. J's Synopsis of fevers
4 groups or genera.
1st 1 paroxysm only — ephem. mitis & acuta.
2nd several parox. — divided into
1 periodicus int. rem. hect.
3d Contin. — from beginning to end of attack 7 or 14 days
Typhus — T. infantum — childs fever has a claim to be called remittent

T. nervosa   T. deliriosa, del tre—)
T. Carcera—   T. sedabrica, T syncop.
probably also malignant epidemic Cholera
T. ustis   T icterodes (has no connexion with marsh influence — has diff. laws from remittent not being remittent)   T putrida,
T. sub putrida,

4th enter. 7 days Cancea is the only one Cancea 7 days. &

Continued fevers, are subject to a quotidian exacerbation, and as Prof T. contends to a hebdomadal period

In sub putrida (synochus) nervosa and in putrid fevers   14 days

cephalitis; perietonitis; hepatitis; the remainder of enfarcts eta   rosalia childer. catarrh.   ~~14~~ d 7 days

Acute rheum atism 14 d.

Absurd treatment will not destroy a patient except on a critical period: & even then the const. may triumph. It is calculated that the old heating practice in small pox did not destroy more than 2 out of 5. & probably atonic treatment in pneumonia typhoidea & perith—

mitis maligna would not be more fatal Good's opinion to the contrary notwithstanding

Critical periods are septenary, ternary & quinary

Reckon by number of exacerbations in regular intermittents. Others begin with a paroxysm & end with a paroxysm i.e. reckon two paroxysmal days and the intermediate days. e.g. quartan 1..4

We must take into account also the postponements and anticipations - hence the termination of the 1st quinary & 2 ternary period will coincide on the 5th day, hence the 5th day more dangerous

After the 14th a critical effort is a relapse ~~In this way~~

In this way Prof T. attempts to explain all the apparent anomalies

We must ascertain precisely when the first rigors commenced, the day and the precise hour, and reckon from it

It is of the greatest consequence to be aware of the time of a critical effort so as to be at hand, to meet symptoms

We must strengthen the patient beforehand &c. Leave directions to be sent for at this ~~day~~ time.

Malignancy & Non malignancy

These seem to be the best terms. Pestilential and oftener putrid has been used. Ataxic (ataxy) means simply irregularity. Mild & benign have been used for non malignant but non malignant disease may be very severe. Adynamic has been used by the French.

Malignancy is a peculiar & considerable deficiency of vital power in an important vital part not accompanied with excitation & may come on suddenly. There is reason to believe that this is seated in the brain & nerves, and shows itself most in the circulating system.

Malignant fevers have been defined to be those which are accompanied with anomalous nervous symptoms. These often are met with, but are met with also in non malignant fevers.

They have been defined to be those in which the real danger is greater than the ap

correct. this is not philosophically true. the dangerous symptoms may not be very obvious unless to close observation, and long continuance and careful watching

Many suppose that all diseases of the putrid type are malignant and that putrid is a synonymous term. True it is, that all highly putrid fevers are malignant but all malignant fevers are not putrid e.g. the cerebral & the syncopal.

The leading circumstances are said to be great exhaustion, great disorder of the function of the brain &c. &c.

Patient is often, in cases of a sudden attack, in as much danger at the end of a few ~~days~~ hours or 5 to 6 days as he would be in ordinary fevers at the end of a fortnight — petechiae vibices, sub sultus Hippocratic face &c coming on early &c &c &c. muscular strength greatly increased or diminished in proportion to the other symptoms violent pain pulse very much too quick or much too slow vital powers very unequally distributed as when the patient has no pulsation in extremities, and yet requires 3 or 4 men to hold him very short or very quick beat of the pulse

especially of very weak also - as in Rozalia cases, of this kind occur in which the patient will not be very sick and will even recover, if not injured by improper evacuations or great errors in regimen -

Even in the most dangerous of some of these cases the tongue & pulse may be morbidly natural

Besides, cases of malignancy may occur in which the patient will not be believed by his friends to be in danger

Malignancy may exist without heat, pain, thirst, coldness &c. and be entirely overlooked by all but practised observers

Plague ~~dysentery~~ yellow fever scarlet fever malignant pneumonia & parotitis &c may be malignant and highly so without violent symptoms and will bear no reducing and require counteracting evacuations ~~within~~ to be used with the greatest caution

Malignancy seems often or generally to depend on a primary disease of the brain while in non malignant diseases the brain seems to be affected

secondarily upon the same affection of another part.

It is of the highest consequence in prescription to distinguish between malignant and very severe non malignant disease.

The French have made malignancy a nosological instead of a pathological distinction. This cannot be well done. Diseases will have to be divided. While malignant & non malignant diseases run gradually into each other.

Malignant diseases are of the class haematic. and generally of typhoid fevers. Tetanus seems likewise to be malignant, when opium will not produce its specific effects. Tetanus seems sometimes also to be epidemic or endemic. Still these and other malignant forms of tetanus may be merely disguised fevers. Continued fevers do occur under disguised forms, though less frequently than intermittents. The latter for instance may take on the form of hemicrania phthisis &c.

The capillaries or the great internal bloodvessels may be gorged from the malignancy, affecting as it does the blood-vessels. This will be an effect of the disease not a cause, as Armstrong supposed.

Counsellors are apt to misjudge case. Prof. T. was called and thought at first that the medication was too strong viz. op. 40 gr. tr. of ... 1 gt. in 24 hours did not change thought the patient did ... grew worse – another phys. continued the doses with immed. advantage – cured

The indications in non malignant diseases are first to counteract and if possible break up and afterwards to support the patient until the disease has run its course. In malignant cases the first indication is to support the patient then we may attend to particular symptoms, as we can. Thus in malignant pneumonitis expectorants are not indicated but stimulants. The more severe the malignancy, the more simple must be our treatment e.g. in some cases opium alone – alcohol alone wine – and in putrid cases cinchona or quinine.

In all malignant diseases

perhaps the narcotics, and especially the nervine narcotics, are always indicated. They seem to be capable of producing an erethism of the brain i.e. an exalted degree of activity.

In severe malignant cases articles will not produce their effects, e.g. arsenic will not when pushed to its greatest extent produce swelling of the upper lip, of the wrists, back of the hands &c.

Whatever has an immediate effect upon the brain and nervous system is only is calculated for malignant cases. Because these sympathise with the skin and rectum, hence the use of the hot bath irritants, turpentine injections &c.

Predisposition

Means 1st Epidemic constitution or diathesis 2nd the precursory symptoms which precede fevers – especially typhus & particularly the nervous – not much the phleg. 3d i.e. imperfect cases of fever which appear to run their course with only the precursory symptoms for example of which is Paresis irrritation of Darwin.

The 4th constitutional or hereditary tendency & peculiarities of structure or function. –

The first kind belongs to Dr Poes. The second may continue 2 3 4 5 or even 7 days & whether disease are shewing to have its regular periods. It occasionally continues 1 or more weeks – Then if the disease do not follow the case will be considered one of the third kind. If the disease follow the symptoms will be considered as the predisposition. i.e. the predisposition consists in the variation of the strength, rapidity & relation of proportion of some or all the vital actions, & that disease consists in their variation, of quality of the vital action, from the standard of health but this is begging the question.

Acute & Chronic

Acute is loosely used for sudden & violent yet duration is often had in view. In strict propriety acute applies to diseases which have a definite & regular

period of termination (more or less reg-
ular) either in resolution or death

N.B. many cases of typhus are longer in duration than many chronic diseases

Chronic dis. are not confined to a regular period – & do not terminate either in resolution or death. Intermittents seem to be the connecting link. Hectic is chronic. Asthma is a chronic disease – the paroxysm however is acute. So of Gout & Intermittent. Chronic dis. may not shorten life!

Acute & chronic are sometimes used for phlogistic & antiphlogistic

Sub acute – if properly treated are cured, but if improperly, becomes chronic, (or if neglected). For instance Infl. of lungs when sub-acute may if neglected or improperly treated terminate in confirmed phthisis

As a general rule you cannot convert a genuine acute dis. into a chronic one e.g. [illegible], typhus, pneumonitis

Sporadic Endemic Epidem-

Formerly these terms were used in a definite sense. Endemic & Epidemic are now confounded on account of the attributing marsh influence to decaying vegetable & animal matter. Marsh influence is the predisposing cause that which determines the nature of the disease. Decaying vegetable or animals, are merely the exciting causes, and the nature of the disease excited by them is determined by other causes

Endemic dis. attack many persons at the same time, owing to some local causes. A neuralgia, a hemicrania a jaundice, a dyspepsia, exist which depend upon marsh ill. these are not febrile

Epidemics occur without any assignable cause — spreading over a town, a nation, a world — none but fevers are epidemic — confined to no lines or no seasons

Demulcentia

Allay irritation internally — externally relieve pain soreness, and swelling; & promote a resolution or a suppuration of the infl. according to the stage of the infl.

The former (irritability?) independent of any nervine or narcotic power. The latter operation is called by Murray and Cullen emollient. Prof. T. objects to the mechanical explanation of both given by Cullen & Murray viz. softening the external parts & involving the acrid or stimulant (i.e. irritating) matter. — on the contrary at the commencement of Catarrh there is a diminished secretion at first — then there is an increased quantity of a sort as bland & mild as any demulcent of the M.M. Catarrh does not irritate by the secretion. It is a specific inflammation. The irritation is not probably at the top of the trachea as Cullen supposed, but in the bronchial vessels.

The impression of a demulcent must be upon the nerves of the part to which it is applied (a vital operation) which impression is transmitted by continuous sympathy — i.e. continuity of texture.

 In cystitis nephritis &c. It is evidently impossible for the demulcents to act upon the diseased part.

Cullen by his admission overthrows his own theory.

The operation of demulcents upon the urinary organs, which Prof. S. thinks with Cullen to be very inconsiderable, is undoubtedly by means of a soothing ~~mechanic~~ influence upon the stomach. It is supposed also by many that all the active and morbid secretions as the various discharges of dysentery, though are acrid and irritating, because they produce an effect.

The term emollient has been given especially to poultices for external use, while mucilaginous or oily applications applied to a burn, or an inflamed eye or injected into the urethra are called demulcents in general. Prof. S. does not make a valid distinction. The application of cataplasms is useful as Prof. S. maintains by a soothing and antirritant effect upon the nerves of the phlegmon for instance and

the promotion of suppuration, and finally the reduction of the swelling is a vital operation upon the absorbents. Cullen's notion, about lessening the cohesion, and insinuating between the particles and diminishing friction are entirely mechanical hypothetical and absurd.

Emollient cataplasms may produce an effect upon the nerves as readily as tickling with a feather.

Emollients are capable of producing their specific effects when the disease is in an internal viscus - though less to be sure than if the disease is upon the surface to which the emollient is applied. Cullen's notion that these articles when swallowed may prove emollient, is entirely improbable.

Prof. T. concludes the operation of emollients and demulcents to be identical - a vital operation produced by mechanical and not medicinal operations in the agents employed - a soothing or antirritant effect upon the nerves of the part or of a contiguous or continuous texture

Prof. T. denies that demulcents may as Cullen thought be reduced to substances of a nature similar to mucilage, and fixed oils. On the contrary we have farinaceous substances, gelatinous substances &c.

Murray's catalogue of demulcents commented on

Murray's direction to use as large a quantity of a demulcent as the stomach will bear, is a very bad one for most cases

Prof. T differs from Murray in his sentiment that the principal use of emollients is owing to heat and moisture. We do not get the same effect from a piece of flannel, kept constantly moistened with warm water. The herbs, the farinaceous substances &c are in his view, and in that of the continental writers, the main part of the cataplasm.

Tapioca is the fecula of the Jatropha manihot, a plant which contains a in acrid essential oil, like arum - the tapioca is procured by washing the roots in cold water repeatedly

On the continent of Europe raisins, figs prunes &c. are much used as emollient

5 sorts in fact viz. mucilaginous farin. oily, sacchi. & gelatinous
The mucilaginous are the best and oftenest prescribed by physicians. The saccharine are the pleasantest. The farinaceous are more agreeable to the taste, and more nutritious, but are thought to be less efficacious - perhaps however because they do not coincide with the fashionable starving regimen. The saccharine have been supposed formerly to injure the stomach, to produce intestinal worms, and caries of the teeth. These prejudices do not now exist, but the effects remain.
Hoarhound added to candy merely prevents too much sugar from being swallowed

Vapour bath & Warm bath
& fumigation and vapour of burning alcohol and friction, with olive oil as in the Levant Plague

Gelatinous demulcents are too nutritious to be long continued.

Demulcents are weak articles but may be injurious in low atonic diseases they are proper in phlogistic death after bleeding and in irritation which is neither inbonic nor atonic

Prof. T. coincides with Ed. & Pav. in thinking that the long continued use of demulcents is ~~[illegible]~~ debilitating — as is seen in Simon's Bex Phthisis &c when the patient is very feeble

Broussais has brought himself into notice by ~~[illegible]~~ using demulcents and depending upon them in the cure of ~~[illegible]~~ diseases to which they had been hitherto thought ~~[illegible]~~ of little use.

Diseases — Dentition by the Broussaisians, and some others — of no value the disease will do as well without any thing, as with dem. alone. Tooth edge — an idiopathic dis. inefficient — Dis. depends on stomach Acute idiop. ptyalism which Prof T. has known as a small epidemic frequently palliated by dem. in the mouth. So of mercur. ptyalism — a mere palliation. Dipsosis avens (drunk immensely) — dem. said to be better than simple drink

All the cases which Prof. J. has seen have connected with eff. of al. con. and re quired no other treatment. There is a dipsosis among drunkards leaving off their habit — dem. are better than simple drink

Dyspepsia by the Bruncisinian, Prof J. has had patients who had have their stom. kept distended in N. Y. by flaxseed tea — mischievous. Colic ileus of rachialgia a practi tioner of of Prof. J.'s acquaintance says he succeeds by immense quant. of mu- cilage, beginning early. Prof. J. does not think much of it.
Diarrhoea vulgaris almost implicit re liance has been placed upon celeges to ~~relieve~~ sheath the bowels from the morbid secretions. ~~Therefore~~ morbid secretions are effects not causes useless.
Common cholera in the same way
Pro[illegible] tenesmus of nausea — do little good taken internally, but palliate of are serviceable by injection
Cholelithus means — (gall stones) to re lax and facilitate the passage of the

gall stones – fomentations are probably better instead of some use – opium is the main article

Acute coryza (entonic c. of Good) relieve somewhat but cat. of dovers powder will cure the patient at once & if the disease returns continually use a clara of bloodroot

Idiop. cough of whoop. cough. &c. do make patients cough somewhat less, if kept in the mouth – must not be depended on

Dyspnoea exacerb. of Asthma – relieved only by the disch. of Bronch. – useless.

All phlegmonous topical infl. – for two purposes – early for alleviation of pain & to discuss – afterwards to promote suppuration and also allay pain irritation, &c.

Cataplasms best containing oil of mucilage, – must be hot – moist not too thin &c.

Cataplasms are found to be bad however about the eyes.

Various specific infl. sh^d not be made to suppurate e.g. mumps and even in phleg. infl. of the parot. gland

In infl. of the breast (female) cataplasms do not do so well. A plaister (of brown diachylon for instance) is better. But in infl. of fem. breast ~~ought~~ suppn. ought always to be prevented by ac. pl. efficiently applied – by various acrids in form of emulsions e.g. arum &c. – by lapis calaminaris in flannel, or in cream or in cerate (very certain though inexplicable) & by various other articles

Erythematic, stomacic, & arthritic infl. and infl. of urethra & vagina, are not benefitted by cataplasms &c.

Some phys. treat Blenorrhoea &c by dem. externally & internally

Burns there is ~~[illegible]~~ something singular about them any treatment is better than none and the treatment utterly various. Lin. water and oil used here in N. H. is ~~[illegible]~~ probably nothing but a demulcent.

Entonic phleg. infl. of fauces (quinsy) not worth much

Erythemat. infl. of fauces require acrids and demulcents are injurious

Ext. phlog. pneumonitis — allays cough &c in the early stage of much importance valuable in general in phlogistic diseases

Catarrh may be used

Typhoid pneumonitis not well adapted

Applied as fomentations, advantageously in Pneumonia of [illegible]

Phthisis it [illegible] little relief to the cough is more than counterbalanced by oppressing the stomach &c.

Enteritis shd be relieved by bleeding &c. and distending the sto. & bow. by dem. shd be avoided

Aphthous

Cholera infantum (a specific infl. of mucous memb. without more [illegible] of purging than in other enteritis) of no great use

Dysentery useful by enema & ~~[illegible]~~ externally not by the mouth

Gastritis & cystitis [illegible]

Infl. of the joints not [illegible] ~~[illegible]~~ [illegible]

Syphilis has been cured according

to the best tasting by arr. alone -
Parasitis acris var. Prurigo a very troublesome complaint relieved by arr. better to oxygen digitalis
Parurea stillitilia var. ureas better cured by op. hyoscyam. &c.
Lithic renalis - of little use
There are many other surgical cases
In general of demulc. cannot be topically applied they are of little use unless in case of continuous sympathy as in case of swallowing dem. into the stomach for pneumonitis - or in contiguous sympathy as by large emollient cataplasms over the liver in hepatitis
The most important demulcent is the gum of Acacia vera & A. Senegal the bark of which contains gallic acid & one sort of dragon's blood in balls - is dried & expressed juice of the green legumes - it is astringent.
The solution of gum arab. becomes after a while vinegar without any apparent fermentation. Hard water disturbs the solution hence soft water only sh^d be used

~~Ext~~ " Gum is a salifying principle forming gum-ates.
The books call th[illegible] cathartic – but all flowers are cathartic unless narcotic too much so to be used.

All mucilages are solutions of gum. The gums of Peach Plum &c. may be used as substitutes but are less elegant. The most important modification of Gum is G. Tragacanth (Astragalus verus – generally) – one part forms as much mucilage as 25 of gum. ar. Medicinally the same as g. arab.

A Creticus & A. gummifer also the latter less valuable. A. tragacantha is expressly s^d to produce no gum.

There are then 2 kinds of Gum g. ar. g. trag. & cherry peach &c.
Gum is soluble in water & not in alcoh.

Other demulcents are from Linum usitatiss. Linseed meal makes one of the best emollient cataps. you have both the oil & the mucilage.
Sesamum indicum – from the whole

plant — the seed contain also a fixed greasy oil (it is said 90 pr ct!) the oil is a good salad and lamp oil (Bene plant)

Trigonella Foenugraecum — whole plant but used much the seeds. seed [illegible] [illegible] and contain also an aromatic principle, very pleasant [illegible], cultivated among us — flavoured the old dyachylon

Ulmus fulva the bark internally & ext. supposed by some to be superior for some cases

U. americana probably a mistake for U. f.

Quince seeds afford a large quantity and if dried have a little quince flavor

Acanthus mollis whole plant in cold water

Althaea off. grows in dry situations — called marsh mallows — ~~whole plant root used~~ —

A. rosea — holly hock not so pleasant

Hibisc. palus. called also marsh mallows, when cultivated called Rose of Sharon

[illegible] [illegible] of Scripture is Hib. Syriacus

whole plant — especially the root. bruised & boiled — somewhat of an earthy taste though

Malva rotund. Malva sylvestris

Viola — several species — roots — V. pedata [illegible] mucilage — thought also by Prof. [illegible] to be slightly emetic & consequently diaphoretic.

Cnosma Sassafras — pith of the split twigs by cold water infus. or decoct. flavoured with sass

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Osmunda spectabilis root said to abound with mucilage extolled by Thatcher
Cetraria Icelandica (Parmelia Ice. &c.)
contains a bitter tonic & a mucilaginous principle — by macerating in cold water you may get the bitter principle separate & then by boiling you can get the mucilage by itself — Some value the bitter by itself. When the two principles are together it is nauseous. Prof. T. could never discover that either of the principles is better than other bitters & mucilages
Cannabis sativa seeds
Senecio vulgaris — abounds with muc. — used mainly for cataplasms — possesses [illegible] & probably [illegible] cath
Pulmonaria off. Cynoglossum off.
Anchusa Borrago
Agropyron repens (couch grass) much used in France — no better probably than other grass
[illegible] melon & pumpkin seeds are mentioned by Huxham &c.
Melilotus 2 spec.

Farinaceous demulcents

Amygdalae comm. almond kernels - used for emulsions - beat with water - little used with us

Salicin cand. - abounds with mucilage & faecula - bruise & boil.

Maranta arundinacea - sh^d be the arrow-root st... ... which is apt to be potatoe starch. N.B. the decoctions of faecula are as good demulcents as mucilages.

Jatropha manihot - cassava - the acrid principle is washed away

Triticum sativum - wheat starch

Oryza sativa -

Hordeum vulgare & H. distichon pearl-barley (decorticated)

Solanum tuberosum - potatoe starch

Symphytum off. roots (cumfrey) more disagreeable than Salicin but less so than potatoe Phaseolus perennis root very large & abounds with faecula

Salep. It ought not to be powdered as in our shops - Orchis mascula - the tubers - freed from their cuticle scalded & dried & then look like horn - must be grated & boiled has it's mucilage ... also

Sago — from the pith of the trunks of nearly all the ~~plants~~ palms — in grains — principally Metroxylon sagus

Secale cereale (rye) & Avena sativa

Zea mays — ~~Honey is the most~~

Of the Saccharine demulcents honey is the most popular. Candy is the best form of sacch. Juglans, Cinerea ~~pur~~ purgative, rotundif. manna purgative Rhamnus zyziphus (Jujube) Panax quinquefolia (Ginseng) Liquorish &c. &c.

Oily demulcents

Olea sat. — nut oil, a delicate article oil of hickory nut, — [illegible] &c. In our Country we do not use oils alone but combine mucilage & sugar. Muscat balsam a solid fixed oil — Myristica moschata — it can be eaten with pleasure

Palm oil (Cocos butyracea) Nutmeg oil

Laurus nobilis a concrete fixed oil

Theobroma cacao ~~cacao~~ chocolate nut — solid oil

Spermaceti — much used, formerly — no better —

Gelatinous demulc.

Icthyocolla — isinglass from Accipenser huso &c. (sturgeons)

Taurocolla from the feet of calves

Sweet demulc. Sacch. cryst.
is best if well prepared — dissolve
in the mouth. No sweet is tolerated so
long as the crystallized sugar
Syrup of sugar is inferior
Glycyrrh glabra – root & ext. by decoct.
the latter is often burned — root best
[illegible] is an indigenous species
concerning whose powers there is much
dispute. Ginseng is demulc, sacch.
mucilag. somewhat aromatic
& bitter. Galium circeizans
used in this vicinity (wild liquorice)
The jujube of our shops is merely
gum tragacanth flavored

Oily Dem.

Nut oil is from J. regia (Persian
Walnut often called Eng. W.)
The oil of shell bark hick nuts is a
pleasant article. Palm oil is from
the seed of Coc. but. Oil from the
Cocoa nut wd probably be good

Albumen is used as a demulcent & from the eggs of Phasianus gallus.

Warm bath - Alcoholic bath Friction with oil are emollient processes.

Irritantia — By their form size gravity or other external & mechanical properties affect in any given way the integuments the skin or alim. canal - or which mechanically agitate the whole body.

Irritation is an extraordinary excitement of the irritability (Travers) definition good for nothing. He says it is in the nervous system. But Prof. S. says it may be in any fn. in any function.

Irritation is always a pathological or a remedial condition and is not a specific disease. Mr. Travers treats only of pathological.

Perhaps the irritation of each disease is peculiar ~~to itself~~ of its kind & different also in different parts. Irritation is sometimes manifested without the least symptom of infl. e.g. pains in the joints, carious teeth, bladder irritable, stone in the bladder, colic, derangement of brain. The pain is often remote from the affection as is seen in neuralgia &c.

In all these cases excessive pain of irritation does not produce infl.

But acute & permanent local irritation will produce inflammation. And infl. may excite irritation.

Local irrit. may terminate in resolution or in local infl. or in const. irrit. - Trav.

Remedial irrit. may be produced by the medic. qual. (i.e. epispastics) or by the mechan. qu. (i.e. irritants)

Intense irritation is constantly mistaken for stimulation. Still they may always be easily distinguished. Mere stimulation is always attended with increased vital energy and strength of action & never produces inflammation. (i.e. entonic infl.)

Irritants form a connecting link between the vesicatories and the more mechanical - But the medicinal irritants are treated of under epispastics

1st Irritantia agitantia i.e. exercise of all kinds

2nd dermatic irritants i.e. friction ^percussion

Sharpening dry cupping scarification.

3° internal irrit. e.g. filings of iron (mainly) pulvis stanni
Formerly many other irritants were used with success e.g. pulvis vitri - silica - lead quicksilver pulverised porcelain. Charcoal (probably) operates on this principle.

Travelling operates thus (vide J. Johnson): the first effect is a diminution corporeal sensibility nerves less irritable next the app. is increased, digestive & assimilative power is increased (as is proved by the costiveness of travellers) Hence the absurdity of the precept eat little & exercise much! No maxim can be more false also than the maxim not to eat a variety of food

Travelling has great influence upon the absorbent system hence diminution of obesity. Active exercise quickens the pulse Passive exercise in a carriage renders it slower. Hence its use for irrit. of heart from dyspepsia use passive in irritability of the heart. & active exercise, as is done in travelling.

In travelling the constant change of air influences the state of the blood itself. A mere change from one air to another is beneficial to the human body. Consumption complaints are worse on the sea shore & better in malarious countries

Travellers & stage drivers have a ruddier skin the blood is denser & redder (Brocheux.)

Passive exercise Swinging or whirling gives potences paleness vertigo nausea tendency to sleep evacuation of bladder & rectum & secretion of cutaneous . In a horizontal position life may be destroyed

Friction is useful in diseases of the abdomen. Friction & percussion have been in use time immemorial for abdominal dis. (vide J. R. Jewett's residence on N. W. Coast The Indians cure colic by it) Its utility is well known in chorea dropsy paralysis &c.

Frequently other medicinal agents are used to by friction e.g. opium with

relieve 2 pass best in this way

Chas. Champion - A receipt for [illegible] on the Chinese [illegible]

Most of the internal or alvine irritants are little used now. They were formerly employed in dyspepsia [illegible] the [illegible] of irritation.

Dr Todd has for 30 years employed powdered glass as a vermifuge ℈ij every morning for a week and after the last give a dose of Cal. It has lately become famous in Europe. [illegible] suddenly it [illegible] only [illegible] used for taenia & [illegible].

Equal parts of Pulv glass ℥ij gentian ℥j & ginger was used by a celebrated Phys. Dr Elliott of this state and there is abundance of testimony from phys. that the composition did [illegible] do [illegible] without the glass [illegible] Dis. &c.

In the late periodicals it is now recommended for porrigo galeata in cerate applied to the head.

A family of empirics were more successful than the phys. in the cure of colic by aloes, opium, powdered porcelain, spices & the dried testicles of a boar. Frict. & perc. are of great use applied to the abdomen in chronic diseases, &c. They augment the effect of many med. as [illegible]

Antacids

Combine with acids in al. can.

It has been [illegible] supposed that the acid of the stomach is the acetic. It is the lactic, which always exists in the stom. & is much increased, often, in dyspepsia. The notion that it is produced by fermentation, is a consequence of the chemical theory (fermentation) of digestion. It is secreted, and is an effect, not the cause of disease.

In certain forms of dyspepsia phosphoric acid is secreted upon an empty stomach & will produce effervescence when spit out upon a marble hearth. In yellow fever Muriatic acid is formed, in a majority of cases.

Antacids are the only chemical remedies. They neither remove nor even palliate the disease acc. to Prof. T. They merely prevent the irritation of the oesophagus (Prof. T.)

Magnesia, potas. sod. lime & amm. are the only antac. necessary. They all form refrig. salts with the lactic ac. &c.

Many times a purging salt is formed
Magnesia is the most powerful antac.
i.e. neutralizes the most acid
Antacids sh^d not be persevered
in — the salts produced are refrigerant
Caustic potassa (& in a less degree
perhaps caustic soda) is when ~~long~~ not too long taken —
somewhat tonic but when combined with
the acid is purgative!
Lime is a moderate tonic, (caustic) more
so than the others. Ammonia is a stim.
Magnesia is not tonic but forms a
purging salt when combined with acid
Lime water is a not used, but
is far more useful when there is no acid
& so of pot. & sod. If you employ
the carbonates, you have also the free car-
bonic ac. which is a weak refrig. & is
adapted to entonic dis. & to those which
are neither entonic nor atonic — It is not
admissible in low atonic cases
You may employ the antacids for a short
time, until you can make other articles op-
erate. The use of antac. in diar-
rhoea originated from the theory that diar.

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rhoea is caused by acid & is not beneficial. Green coloured stools are supposed to proceed from acid - but no acid is found in them. Neither do they contain bile which is not green ~~but~~ but yellow. Experiments have proved that antacids rather keep up than dim. a diarrh.

Antilithics

prevent calculi & obviate their ill effects. Lithontriptics dissolve stones are formed. Prof. T. includes under the class antilithics both ~~which~~ kinds. Lithontriptics if they exist sh^d^ be ranked among chem. rem.

In order to prevent the formation of calculi, the diagnostics of calculary diathesis sh^d^ be thoroughly understood both ~~the~~ by the phys. & the patient. The latter sh^d^ apply in season.

As to Lithontriptics, the first step toward prescribing for a patient must be ~~A~~ an analysis of his urine - you must also ~~analyse~~ ascertain the sort of calculus. Vide Berzelius's analysis.

Besides. The urine is constantly varying

in health

Lithia renalis sabulosa, is dis[illegible]-nated only by sand in the urine. L. ren. calculosa has two certain diagnostics

Antilithics are 1st ant. ~~pt~~ prophylactica, and are generally weak medicinal articles e.g. Arctostaphylos uva ursi which is astringent & demulcent, but is useless in infusion, & sh^d be made by decoct. dose 1 to 2 drams 6 or 8 times a day (about 4 times a day) of the extract - diffused in a liquid & used as a prophylactic in Lithia Chimaphila Corym. & mac. have the same powers, but are more active & are better - they are diuretic in addition. Andro[illegible] calyc. is more powerful still & has the same properties but contains a bitter principle besides Agathosma crenatum (Cape of G. Hope) appears to be more active & to possess the same powers

2nd Lithontriptic antilithics - are soda potash ammonia, muriatic sulphuric acid & oxalic acid

Soap is called an antilithic proba-bly as its alkali acts chemically if at all

Muriatic & sulphuric acids are tonics and then deobstruents

N.B. Lithontryptics sh^d be spelt with i - being derived from θρυπτω!!!

In the present state of our knowl-edge it would seem that the avoidance of fermented liquors and animal food tends to obviate the uric acid diathesis. Another prophylactic is keeping up a free insensible perspiration from the skin. The lithon-tryptics are lime water - potash, soda, & magnesia - ammonia being thought to be contraindicated because the calculus ~~in that~~ consists of urate of ammonia

Lithontriptics are now pretty much given up - and have never done more than give temporary and palliative re-lief in Lithia renalis. And even in this narcotics, as opium & conium in the intervals of the paroxysms, are of far more consequence ...

Root of Collinsonia Canadensis has had considerable attributed to it as a

prophylactic in lithia. Sir [illegible], thinks it of high efficacy in the calculi of [illegible]
Gastric liquor [illegible] has been [illegible] given by injection into the bladder

Antipharmics

antidota & Alexiteria also

They are articles supposed to counteract directly and specifically the operation of poisons.

Poisoning is the noxious effect of an excessive or ill timed exhibition of a medicinal agent — with the exception of the bites and stings of animals. So Pliny declared ubi virus ibi virtus — Linnaeus declared that poisons differ from medicines only in dose — in Greek φαρμακον means medicine & poison both. There is no agent as is said which cannot be safely applied to the system.

Poisoning consists in irritation stupefaction exhaustion or disorganization, which produce infl. ulcer. ptyalism colic cholera diarrhoea vertical apoplexy coma convulsions marasmus which are all more or less specific diseases and are to be treated as such.

Indications, 1st removal of the poison 2nd counteraction of its effects. the removal will be effected in various ways according to the manner in which it has been applied. In fact however the phys is always called to remove the poison from the al. can. and this may always better be done by em. & cath. than by chemical means, by injections into the bloodvessels &c.

Tying the oesophagus of an animal is a barbarous and unjustifiable piece of cruelty, Injection into the blood vessels of animals is also useless & barbarous

Orfila's toxicology is a piece of empiricism founded only upon the notion of specific remedies, about as useless a plan of investigation as that of the philos. stone & the universal solvent. It is very strange that Orfila's American editor should have supposed that savages understand the subject better than enlightened men

The study and the dread of poisoning are been confined to barbarous ages

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[illegible]

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(2)

Helminthics

[illegible] bind under the articles of this class.
As a class they sh^d be treated of not in
nat. med. but in treatises of the disease
[illegible] in [illegible].

Worms that find a proper [illegible] in [illegible] can-
1st A. Lumb. [millium] 2 A. verm. [rectum] 3 Tricocephalus
hominis generally found in the caecum [is [illegible] improper name] [illegible]
4 Taen. Solium [(long)] 5th T. ~~lata~~ [vulgaris (lined)] 6th T. lata [(broad)] 7th T. den-
tata 8th Fasciola hominis called gourd worm
improperly supposed to be joints of the tape worm.

Gordius aquaticus, found in
wells & stagnant waters. Hirudo med-
icinalis & sanguisuga (Discovered lately [metamorphosis] passed through).
Musca cibaria carnearia,
[illegible] [illegible]. Oestrus equi & hemorrhoi-
dalis. Scarabaeus [illegible] [illegible] &
Even the Apis mellifica [illegible]
spider. Lacerta aquatica &c.

When these strange cases occur
the physician is perfectly confounded. Cases
[illegible] a British period. Catalepsy Epilepsy
[illegible] [illegible] [illegible] blindness
gnawing pain at scrobiculus cordis costiveness
vomiting of blood morbid appetite fetid

breath &c &c &c. A dozen kinds of insects were thrown up. It was found that the woman had 12 years before consumed in her drink a large quantity of clay from the graves of two clergymen.

It seems to be abundantly proved that all the worms (exc. the tricocephalus) found in the body are likewise found out of the body.

Various phys. have met with A. lum. in ~~found~~ ulcers on the surface. Leuret has proved and others have confirmed it, that teniae exist in muddy springs. The worms when found out of the body are much smaller & may not be ~~found~~ recognized except by a naturalist.

A. lum. is met with in stagnant waters. Fasciola of sheep is met with in stagnant waters. A. vulgaris is well known to exist out of the body. Case of an English country seat — Found in the ~~of~~ water of the spring and meat in a microscopic state.

The tricocephalus has not yet ~~yet~~ been met with out of the body.

They are all now ascertained to be oviparous, (except they are more ... received ...) the young taeniae formerly supposed

to be found in the bodies of the old ones are now ascertained to be intestinal worms of the [illegible] & worms may exist in normal [illegible]

Prof. T. has turned his attention particularly to taeniae. He has repeatedly seen all the symptoms of worms when none existed even upon post mortem exam.
There is no good evidence that intestinal worms ever are the primary causes of disease

Symptoms. torpor somnolency sallowness flushing occasionally strabismus lividity, acid fetid breath thirst white tongue frothy spittle. frothy whitish or bloody urine [illegible] tenesmus gnawing pain in stomach costiveness or diarrhoea. Change of voice or even absolute aphonia. starting in sleep twitching of hands & feet — cough &c &c &c.

Worms often exist without acute illness in valetudinarians & they are occasionally met with in almost any acute disease

The above symptoms are the symptoms of Typhus infantum, Cephalitis [illegible] (hyd. int.) & a species of marasmus.

It is well known that for a con-

[illegible] in a particular place one will meet with no worms & at others will meet with many. Even when they exist the severity of the symptoms does not necessarily correspond to the number of worms.
For the last 12 years (about)

1st worms are always introduced from without 2nd not usually developed in perfect health 3d when the stom. & int. are moderately weakened the worms often exist in moderate numbers but are seldom vivacious enough
4th [illegible] the accession of [illegible]
5 Great dyspepsia
6 Worms are ~~rather~~ the effect not the cause of disease

Anthelmintics are
1st A. vermifuga 2nd A. deleteria
3d A. corrigentia 4th A. complexa
1st Gamboge (Stalagmitis gambogioides) Aloe spicata &c. Dioxide of merc. (black oxide or grey or cinerous oxide [illegible] black called

(Ethiopper se) Di-chloride of m---c
Any drastic cath. or any co--- or cath.
2 ---. delentia destroy worms they are Spigelia anthelmintica & Marilandica --- narcotics
Dryobalanops Camphora --- narcotic nervine & stimulant. Chenop. anthelmintica ambrosioides & Botrys --- the essential oil --- called worm-seed, but the oil is the part used. Ch. ambrosioides & Botrys are naturalized. The oil is nervine, & in large doses is narcotic. Prof. T. has known it taken by mistake so as to produce delirium & coma, & he has used it but never knew it stimulate
Oil of Tanacetum vulgare --- nervine & powerfully narcotic
Artemisia santonica & absinthium --- probably narcotic. Fucus vesiculosus has been much used --- it contains iodine
Aspidium filix mas Prof. T. thinks from his own experience & knowledge & --- the way it is used, that is absolutely inert. Filings of tin & --- pulverized glass silex in powder --- all irritants
Arsenite of potassa --- Mucuna prurit---

riers or of cartilage Prof. T. considers it as perfectly inert - when moisten'd being perfectly smooth. Prof. T. has used it a good deal & could never perceive any effect.

A. Corrigentia - are tonics a variety of them - especially iron (prob. sulphate is the best) - chloro-ferrate of ammonia cuticanus veneres or martial flowers Punica granatum

Complex Anthelmintics are Ol. turpentine - highly valuable - is nervine narcotic stimulant & cath. Ol. juniper is similar & but inferior Andeira inermis - narcotic deobstruent, emetic & cath Veratrum sabadilla - acrid narcotic cath. Delphinium Staphisagria - seeds Helleborus foetidus & niger

A. very seldom requires drastic cath. or narcotics &c. It requires peculiar treatment. They may infallibly be destroyed & evacuated by aloes & milk (triturated) by injection into the rectum. You may however cure by aloes internally giving chloro-ferrate of iron

Camphor in milk by injection is said to cure but sometimes produces epileptic convulsions - not dangerous but alarming - in children

Epispastics

By topical application & not by chemical mechanical but by medicinal properties produce change of action, inflam. or vesication or destructive of vitality

Epispastics act by medicinal irritants by mechanical powers. Epispastics are medicinal irritants. Irritants are not necessarily stimulants, but may be even refrigerants e.g. nit. pot. & tart. ant. Also excessive doses of narcotics, stimulants are irritants but not stimulant. Stimulants when not accompanied may be given in doses which transcend the stimulating point. So also em. & cath. may be given in doses transcending the vomiting & purging point.

Some epispastics, or irritants, owe apparently their irrit. virt. to their acrimony, while others have no acrimony whatever to the taste, e.g. cantharis & phos.

phorus, So stimulants are not necessarily acrid e.g. wine that is a more stimulant than capsicum and acts immediately on the blood vessels while capsicum and other acrids act first upon the mucous membrane of the stomach this an important consideration

The pain produced by different epispastics of no consequence in determining their relative merits

[illegible] gives the following account of the uses of epispastics 1st to increase the activity of the system generally by means of their irritation 2nd to increase that of a particular organ in the same way activity not strength of action 3d counterirritation to relieve [illegible] internal organ

Prof. S. gives the following account 1st externally to a topical [illegible]
2nd [illegible] to a distant part or organ [illegible]

3d externally over an internal infl. to modify or change or counteract or overcome
4th to arouse the vital energies of the whole

system — observe arouse — not strengthen action

The infl. produced by episp. is erythematic infl. of sev. variety

Epispastics are equally contraindicated in high exten. ic or low atonic cases — but if they are combined with bleeding on the one hand & stimulants on the other they may be useful in these if there is topical infl. Cause a g ... if more do not admit of them but if they are complicated with topical infl. Episp. may be used after ~~infl.~~ bleed.

In other fevers complicated with local infl. they may often be the first measure

They shd be applied as near as possible to the local affection

When we wish to increase the susceptibility & obviate torpor of a part apply the blister ~~in a direct~~ if possible directly upon the part — as in indolent chronic infl. But if we wish to counteract infl. apply the episp. near the part.

Some say that ~~they~~ there are

idiosyncracies against blisters — but we can always apply blisters by regulating their size and by keeping the system under the operation of opium —

When we wish to keep up a discharge we apply a plaster of cerate sprinkled with cantharides, or we sprinkle [illegible] savine leaves, or apply savine oil — or we keep in a pepper corn or an orange peel.

Prof. T. thinks with Pares that in most merely medical cases a succession of blisters is preferable to setons and issues but he [illegible] that in many surgical cases setons and issues are preferable — thinking that in many cases the purulent discharge from setons or issues is more beneficial than the serous discharge — as in strumous [illegible] of the verteb. & the hip joint

Dr Fish of Salisbury has found that as a general rule chills or torpor take place when vesication is commencing [illegible] in [illegible] Prof. T. has often noticed this

Cantharis affects the system

more readily and / is more liable to cause strangury than when upon the spine (& the more so when high up even upon the head) than when upon any other part next to the spine is the inside of the thighs — So of other articles

Children are injured & disturbed by very large ~~doses~~ of epispastics, they do not bear them near as well as adults. Adults require very large ones in some diseases but there is not so much variation of susceptibility in the diseases of children

Some practitioners apply a strip the whole length of the spine in tetanus — in chron. aff. of uterus, in leucorrhea chronic cephalea — in paraplegia and it is said in acute rheumatism — (it is bad practice to apply blisters to the seat of the loc. aff. in acute rheum.)

The skin seems to be susceptible of irritation from things which are not strong or hot enough to irritate the muc. memb.

Epispast. have been assumed to be useful in all asthenic infl. But they are dangerous when the vital

energies are very much impaired

Prof. T. came to this conclusion after much experience of the of ill effects of epispastics in producing gangrene. Case in which a small boil was converted into an extensive gangrene by a large blister. Whether epispastics increase or diminish a gangrenous tendency depends upon the general condition of the system.

Mr. Abernethy says that epispastics are very liable to abuse – he directs not to apply a blister a foot square but a succession of small ones to a ~~foot~~ large square – & cautions against encumbering the constitution with two serious local diseases instead of one.

Sources of Episp. are animal vegetable and chemical or mineral.

The animal episp. are less painful, produce one large vesicle, there is seldom any ulceration, or cicatrix. The vegetable epispastics are somewhat more painful, extend beyond the blister, produce ulceration &c.

The mineral episp. are not strictly vesi-

atory but ultimately produce ulceration without a previous effusion of lymph

Epispastics are acrid & not acrid. The non acrid are more powerful vesicatories, the acrid being often with difficulty carried beyond rubefaction.

Episp. are either pure episp. with no other power or refrigerants or stimulants.

By the degree of action they are 1st antipsoraica or 2d rubefacient or 3d vesicant or 4th escharotic (caustic) which destroy vitality & separate a slough which leaves an ulcer. These distinctions are all of consequence for instance the depressing effect of tartar emetic & even vomiting accompany its application as an epispastic and sh^d^ always be avoided in low cases. N.B. Antipsoraic articles act in the same way as rubefacients, but do not go so far. e.g. verat. alb. cures [illegible] without rubefact. but may be pushed so as to produce it. The principal of this kind are Sulphur bark of root of myrica cerifera root of Sanguinar. root of Verat. vir. & alb. & the seeds of [illegible]

these are more powerful & they are here ranged the strongest last. Yet in b-

phus may produce rubefaction & it is said even vesication.

Other chem. art. have antipsoric power e.g. alum acet. of lead (partly perhaps as irrit. as well as astringent) so also sulph. zinc. — proto sulph. ferri (copperas sal martis) ~ antipsoric in scabies — all are of more consequence as local astringents. Deutoxide of merc. Deutochloride (black wash gen.) Deutoproto nit. merc. (~~red precip.~~) a powerful caustic will be treated of among ~~~~. Protoxide (red precip.) proto chloride merc. proto sulph. copper. Iodides of potassa & soda.

The most important rubefacients seeds of sinapis alba & nigra. They are laxative, emetic, & epispastic and may be used so as to produce antipsoric rubef. & vesic. power.

When used as cath. ~~give~~ let a desert or table sp. of entire seeds (the cath. princ. resides in the epispermum of the seed) dispersed in a convenient menstruum — much used in dyspepsia & costiveness — laxative & in some persons even cathartic a valuable

article when we wish to produce nothing more than a gentle or coprolic effect

When used as an emetic, reduce to a powder as fine as possible dose a dessert to a tablesp.

Operates, with only a momentary nausea & leaves no prostration or exhaustion

A very certain emetic. Peculiarly adapted for expelling narcotic poisons

As a rubefacient you may make it produce a rubefacient effect for a longer time without passing into vesication — than any other article. Spread your mustard upon any common cataplasm. Be careful not to let the rubefaction pass into vesication, for the ulcer is difficult to heal & leaves an unsightly scar. Another way is to spread the fine mustard upon rosinon, cerate (basilicon) or upon soft adhesive plaster the plasters will then adhere and may be worn. Another way is when the feet are cold to apply friction & with flannel with mustard sprinkled on it or bats of cotton sprinkled & quilted into large stockings

Mustard powder loses its power upon keeping & upon being exposed to light — the

best way of preparing it is by thorough trituration in an iron mortar, not rolled under a rolling pin!! as is common.

Root of Cochlearia Armoracia (horse radish) Commonly said to be stimulant but it is rather irritant in proving digestion & appetite & increasing susceptibility. It is deobstruent & diuretic also. The ~~leaves also~~ root is epispastic (rub.) The leaves do not act on some, but vesicate in others, ~~on~~ with the majority they are rubef. valuable. crush the leaves with a roller.

Bark of Daphne Mezereon. Bark of Dirca palustris. Inspissated sap of Euphorbia offic. much used. Capsicum. Bulb of ~~[illegible]~~ Allium Sativum uncertain in strength. Hippomane Mancinella (dried sap) but is much used in Indya &c but is liable to affect the whole body like Rhus ven. of more importance as a stimul. Amyris toxifera (southern state). Piper nigrum, longum & cubeba seed & also the oil. Ginger. Bark of Canella alba — a favorite applic. of Prof Smith's in Tonsilitis. Drimys Winteri (Winters bark) is still

more useful. Burgundy pitch. (which is resin distilled having the oil distilled off with the water) Colophony (resin distilled without water) is an inferior one. Burgundy pitch plasters are commonly applied as mere placebo's & consequence is of little consequence. They are supposed to give mechanic support to the muscles. They may be so applied as to effect this "I think they may"

Recent bruised bark of Juglans Cinerea
Bruised leaves of Clematis, not much used — in some vesicatory, & give acrim. — a flannel wet with it & then covered with a dry one — Applied in form of liniment. — Avoid evaporation. Many of the ess. oils

Electricity is used — rubefaction may always be produced, and sometimes an actual sore. Dry cupping & wet cupping & scarif. acts on the same principle.

Vesicating epispastics

The most powerful & the speediest is boiling water. Cover a cup full of boiling water (a cup with a projecting brim)

and tie over it thick cloth invert & keep it on until an ashing is produced take off

Animal epispastics

Most powerful is Lytta gigas (E. India) Lytta Nuttallii said to be better than Canth. vesic. (N. W. States) C. vesic. C. vittata (potatoe fly) C. atrata & C. Cerambyx moscata. Meloe scarabaeus M. M. Mylabris cichorei found in the Levant is said to be the insect by Hippocrates & still used in the Levant. All of these are coleoptera. Phalaena neustria (appletree worm) the larva equal to the Cantharis. Crush them between two pieces of leather & use each piece as a plaster. Apis mellifica and a large number of other insects

Veg. vesic. — ol. mon. punct. ol. cin. perseæ cinnamomi ol. malaleuca cajeputi. Ranunculi (root is best) these are the best in deep seated infl. as gonylitis (white swelling) slow in their operation, produce great

irritation and thereby cure the disease
It is more efficacious in the fall after the top
has decayed - & next to this in the spring.
It is supposed not to affect some - but prob-
ably acts only slower on these
Ruta graveolens but are apt to produce
an ~~=~~ erysipel. infl. beyond. So also
Pulsatilla & Euphorbia lathyris
the roots (rhus) might be used on some of these
Vesicatories are applied in
form of lotion liniment. or plaister
Plasters of blistering articles are best
confined by strips of adhesive plaister -
or by spreading the edge of the plaister
with adhesive plaister

Setons and issues,
~~setons~~ issues are always preferable to ~~issues~~ setons
except where the patients will not keep
them up - getting tired of them

Escharotics & Caustics are practically
synonymous

those who are little susceptible to them
[illegible] generally the Ruta & Pulsatilla will
be preferable. They prod. E. vesic. & Clematis

Mineral acids

Take nitric, muriatic, sulphuric or aqua regia. Have ready some soft car[illegible] [illegible] pot. Dip a feather in the acid & [illegible] [illegible] and brush over the part and then apply the alkali to neutralize. [illegible] blisters are [illegible] [illegible] very low typhoid fevers, where [illegible] fails.

Iodine [illegible] [illegible] the [illegible] [illegible] "It have the deobstruent effect" [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] exposed to [illegible] [illegible] Hydriodate of potas [illegible] [illegible] for this leaves no stain.

Per chloride of merc. (corr. sub.) is some times used for issues. It is applied to old sores to keep down proud flesh &c.

Protoxide of calcium [illegible] or sodium [illegible] is applied to issues. [illegible] [illegible] [illegible] [illegible] a hole in a plaster) is used for making issues. So Caustic potassa, or soda.

Nitrate of silver is used also for making issues. Corr. sub. is also used for [illegible] [illegible] [illegible] even used as a [illegible]

pastes and caustics to supersede the knife in ulcers &c.) Tart. ant. et pot. is also much applied externally often injudiciously when the patient is feeble or susceptible, and where antimony internally would be improper this does not seem to be a best article. Chloride of ant. (Butter of ant.) is much used on the Continent & is thought to have peculiar specific virtues

Moxa is in fact the actual cautery. Prof. T. has seen a lot of cotton commonly used. In India the down of a species of Artemisia is used

To make an issue with potass. calcium. Apply a piece of adhes. plaster with a hole in it & in the hole sprinkle the quicklime. Dress with simple cerate. Savin cerate is good. Bichromate of potassium is stronger

The Japanese form of the ancient way nitrate of silver.

Cantharis Vesicatoria

Febric. called it Lytta [illegible] 2. Linnaeus called it Meloe [illegible]. Blistering or Spanish fly [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].) [illegible] [illegible] [illegible] France, Italy, [illegible] [illegible], found in our E. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] various species of [illegible] [illegible] &c.

General colour green [illegible] [illegible] black [illegible] multiplies greatly [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] shaking [illegible] [illegible] shook down [illegible] on a [illegible] [illegible] mixed with [illegible] [illegible] [illegible] [illegible] [illegible] dried [illegible] [illegible]

Keeps in a well stopped vessel after being well dried [illegible] strength of [illegible]. [illegible] [illegible] [illegible] [illegible] is attacked by a small [illegible] [illegible] [illegible] [illegible], not destroy the active part [illegible] the remaining powder [illegible] [illegible] [illegible] active [illegible] [illegible]. should [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

Composition of the [illegible] [illegible] [illegible] [illegible] [illegible] by analysis. Robiquet obtained an [illegible] principle [illegible]

called Cantharidin – strongly epispastic
that it is said that the volatile and odo-
rous principle of the living insect is vesic-
atory. Cantharidin is obtained by redu-
cing the [illegible], &c. &c. vide Murray
It is said that the smallest particle in ag-
[illegible] dissolved will speedily raise a
blister. Dr. Staples of Phil. dissolves the
insect in Ol. [illegible] [illegible] evaporates
Probably if the powder of the insect is dis-
solved in ether & the ether evaporated, we
would have cantharidin, & this is the pro-
cess in preparation of liniments for [illegible]
[illegible] to plasters as they can be
exactly confined to one part, with the
exception of the scalp [illegible] patients will
submit to have their heads shaved.
Watery and alcoholic preps. of the [illegible]
the insect are vesic. [illegible]
that the yellow [illegible] [illegible]
[illegible] [illegible] water

Canth. has been used in medicine
from time immemorial. It was used by
Hippocrates in dropsy & [illegible]
In the 16th century a physician Eng

[illegible] [illegible] [illegible] by [illegible] [illegible] [illegible]

Used internally as a sedative, stimulant & diuretic. Many call it the most powerful stim. in the M.M. It is difficult however to realize such a power.

In health it does not generally increase the discharge of urine. It does however often in dropsy, and under these [illegible] more [illegible] [illegible]. It is laid down as a rule that it is never proper in dropsy except when stimulants are. Prof. [illegible] & Dr Woods of Phil. say Castle [illegible] [illegible] [illegible] in aphlogistic cases of dropsy, so others have found. When used as a diuretic its eff. are first felt on the blood vessels & in increasing the [illegible] of the [illegible] [illegible] & vice versa [illegible] [illegible] [illegible] upon [illegible]. It is not necessary however to produce strangury by it [illegible] the increase of urine [illegible] [illegible] [illegible], [illegible] [illegible] if it is [illegible] at that interval. Hence we may [illegible] the article if there has been no increase of [illegible] if there has [illegible] or at least [illegible] [illegible] [illegible] article

The internal use of Canth. is probably more common in this country than in Europe. Probably however many use it who have not come before the public — for numbers of our M.M. are very timid practitioners & behind the actual state of the practice.

It is given internally in substance in pill, or tincture. A. T. Thomson's dose of subst. is too large viz. ½ to 3 gr. 1 gr. is about a full dose. He remarks that as it is a severe stimulant, it should be combined with op. or camphor, or a just one [illegible] ½ gr. once in 3 hours is enough for an adult. In substance it is much more liable to produce inconvenient effects before its [illegible] Prof. T. however has found [illegible] with the tinct. [illegible] not liable to this inconvenience.

Tinct. Canth. is made of various strength (see Murray). Prof. [illegible] 1 oz. to 1 lb. of proof spt. [illegible] tinct. Prof. T. pro. ʒss to 1 lb of proof spt. [illegible] tinct. Prof. T. [illegible] 5 to 10 drops every 2 hours

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in many cases they may be the doses of the patient. In Europe [illegible] twice [illegible] dose [illegible] interval [illegible]

Vesicating properties of the Cantharis. N.B. all the vesications of the epispastics are produced by an erythema vesiculare. The lightest kind of this we have in a sun burn. Canth. like other episp. produce a single large blister, containing pure serum & produce no effect on parts not covered by the plaster except when on the forehead, when an erythema often occurs about the eyes & face, of no consequence how.

The effects are more speedy & the consequences less lasting than those of the vegetable epispastics. Hence as a vesicatory it is much preferable to the vegetable epispastics in acute diseases. In chronic diseases the vegetable epist. are preferable.

Some call Cantharis the most powerful vesicatory. It is difficult to settle precedence between articles.

It must be remembered that

Blisters do not increase strength of action they only excite, hence they are proper in fevers where there is preternatural torpor & unsusceptibility. In cause a consequently they are always injurious and if there is a phlegm or any inflam. accompanying or in preference, blisters must not be used, or till after bleeding &c.

In low-advanced cases, stimulants sh^d be given in connexion with the applic. of blisters

In excessive irritability pr. refuse opiates or narcotics must be conjoined

Where there is extreme general exhaustion and a tendency to local mortification blisters are inadmissible - if there is not this exhaustion blisters will tend to prevent mortification. On the other hand when mortification is likely to result from high inflammatory action they will be injurious that infl. sh^d have been previously treated with bleeding &c.

Forms of epispastics

Plaisters are commonly used. Dr Duncan prefers ointment impregnated with beat re

1C. A strong decoct. in oil of [illegible], a

powerful effects - applied by [illegible] [illegible]. Cerate is preferable to plaisters which are generally too *hard* & sometimes are *adhesive* & it was thought necessary that the plaister sh^d^ *stick* and they would pull off all the skin

Adhesive plaisters are made with ol. oil instead of lard. Blister plaisters should be so soft as to be softened by the heat of the body. It may be confined by strips of adhesive plaisters, or by adhesive plaster around the edges. Cerat [illegible] and liniments are too soft because they spread. R 1 part fine powdered canth. & 2 cerate

Basilicum (unguentum basilicum or resinosum) is a good cerate. This however is too strong for the acute diseases of children. Prof T. always keeps plasters of two strengths one for children

Do not add the canth. when the cerate is at the hottest. Spreading the plaister with a hot iron is also a bad practice. Softening the skin with warm soap suds increasing the susceptibility

P. T.

158 The previous application of a poultice also will increase the susceptib. But in acute dis. we need not wait but chafe with ol. ... caps. or amm. The ordinary time of acting is about 10 to 12 hours. The time may be shortened by a thick plaister. Dr Pareis thinks the head requires double the time. But though one great vesicle is not raised at first, but only after another 10 or 12 hours, still vesication is in fact produced in the usual time. But Prof. T. never at this time uses plaisters for the head but the tinct. or a linim. of tinct. canth. amm. & ol. oliv. & says nothing about the extreme unction!!

Children are more susceptibility owing not to their delicacy of the skin merely, but to their greater general susceptibility.

When a blister is fairly raised, the plaister sh^d be removed. Dress with simple cerate

Off. prep. are 1st a weak tinct. - of no use - as man might take a table spoonful. 2nd a strong tinct. - Cant

not strong enough 3rd an ointment of it infusion of the ins. a useless refinement 4th Ointment of the a bat. useless - 5th Cerate 6 plaister not worth retaining

The unpleasant and inconvenient effects of the canth. are 1st strangury & even bloody urine with sometimes uneasiness in the bowels This is more liable to occur when the plaister is too large or upon the inside of the thighs or upon the spine. A foolish attempt has been made to separate the noxious principle But all the unpleasant effects may be removed by a fluid drachm of opium by enema or by opium by the mouth Contrary to Duncan &c. Dr Murray & Thompson Profs F. & T. have had abundant experience of the virtue of camphor in obviating the ill effects of canth. Indeed the operation of opium & camphor are nearly the same viz. stim. nervous narcotic, diuretic &c. Still camphor is less speedy & less certain. Probably conium & hyoscyamus would obviate this strangury. Probably also any narcotic

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Milk demulcents, mucilages, which are recommended so much, are unnecessary & inefficient in bad cases. The strangury may be stopped by opium before a warm bath or semicupium can be prepared.

We are not to suppose that the ill effects of canth. are owing to adulteration.

Sometimes

Various eff. of intern. use
fetid breath nausea vom. tormina bloody stools, bloody urine priapism or languor
Cadaverous breath, convuls. tetanus stupor Seems to destroy life by infl. of ur. can. & bladder not a phlegmonous infl.

In case of poisoning the minute green specks upon the intestines will help decide - if it has been given in ----. If given in tincture we can judge only by the symptoms &c. Prof. T. thinks also that chem. tests will not determine without fallacy, even min. poisons even arsenic. of course not animal

The remedies commonly recom

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needed to overcome effect of Canth. are mild demulcent emetics such as olive oil — (but there are no such emetics) — after this, a liberal use of mucilages — also free [illegible] abdomen with ung. & ol. oliv.

Still we should not crowd the stomach too much with demulcents. Bleed would only make the patient die sooner. But the great of remedy should be opium — given with sufficient freedom to alleviate pain and procure sleep. Prof. S. has had several cases and has had no difficulty in keeping the symptoms under with opium —
[illegible] whiles, are [illegible] hyoscyam. [illegible]

Diseases — 1st neuralgic toothache a blister may be a useful auxiliary. 2nd rheumatic toothache a blister cures.

Dinosis syncopt. — internally given [illegible]. D. sputatoria — assists preventing & curing. D. albicans (white gum dis.) D. gastrodynia — blisters externally, assist — Common dyspepsia with a torpid stomach blisters externally often useful.

Articulations, blisters are often useful
but rubefacients are better in the first stages,
in the secondary stages a large blister will
often put an end to the disease — so of
Bronchial. Febrous [illegible] &
[illegible] melaena (the latter differs because it oc-
curs in broken down const.) in bowels, use a
the latter blisters in the former —
[illegible] cracker — blisters — co-
nium & quinine are the main articles
[illegible] internally. Dr. [illegible] think
cantharides specific in struma — it seems
[illegible] better conjoin iron or quinine
with it. Chronic Coryza Prof.
[illegible] has cured several cases by canth.
Aphonia atonica, connected with dyspepsia
[illegible] of par vagum or sympathetic nerve
may be often cured by [illegible]
[illegible] — also by pellitory which is also
[illegible], stimulating, & even vesicatory
[illegible]
Typhus of all sorts whenever there is inter-
nal organic aff as of brain — blisters
in the secondary stages, but smaller
When typhus commences with syphilis

delirium, [?] stare &c. bent or kept on the feet. [?] in malignant typhus, gives to the amount of 1/2 oz in 24 hours, by Prof. D.

A dry skin, [illegible] slow and languid circulation brown and dry tongue &c. strongly indicate it acc. to A. M. Ives. The test of the system's being sufficiently affected is some irritation about the urinary organs, Prof D. gives 10 20 or 30 drops every hour or every two hours. He has known but one case of failure ~~when~~ to cure by canth. when the specific effects have been produced. Prof. .. has had the same experience with the exception

Canth. answers well in exhaustion & torpor but not so well in irritability or in excitement. Best suited to moderately malignant <u>nervous</u> typhus. It is useful in translating the diseased excitement from the nerves to the bloodvessels (Prof. ..) But Prof. D. thinks we have never ~~no~~ any evidence of excitement in the nerves. This distinction amounts to no more than calling it a stimulant, but not a nervine

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Delirium tremens, which is a species of typhus, unless there is excess irritability, there is always great cases as permanently if used in these cases of the canth. overcoming the cond. of the syst. in which the disease depends.

Erysipelas, sometimes before infl. becomes, before their arriving at their height

Pneumonia where but a small portion of the lungs is affected there is good reason to suppose that blisters have dispersed the abscess

Carbuncle in its earliest stage

Other erythem. infl. vide supra

Visceral phlogosis, if external and phlegmonous blisters over the part reserves — also if erythematic, strumous &c.

Paralysis. blisters are highly useful

Leucorrhœa ... internally canth. is the most import. ... sulph. ... also valuable. A sort of test of the efficacy of the canth. is a thickening & opacity of the discharge from the vagina which is produced by canth. It is not necessary to keep up even a slight strangury. Of course dysuria is not to be suffered.

Blenorrhoea Leucorr. Canth. often cures yet it, as well as every other article, occasionally fails. This disease is more difficult to cure when it has often existed. Canth. may be given in a large dose to break up the disease at once at the risk of strangury — or in small doses. The strangury may be relieved by opium. Blenorrhoea simplex (gleet) used as in Leucorrhoea con. uring. You may anticipate the ~~discha~~ strangury by observing the increase of urine

Spermatorrhoea

Chlorosis

Prolapsus uteri (Edr. [illegible]) Canth. seems to possess a peculiar action on the mucous membranes, — hence Dr T. Ward of Vermont finds it the best cont. article to obviate the relaxation upon which the disease depe[nds]

Hydrops — useful as a diuretic & as a stimulant. It has been supposed that the substance is preferable — this is owing in a meas. to the weakness of the European ~~mixture~~ tincture. Prof P carried off all the fluid in one night the pat. was cold & almost pulseless in the morning but was restored by laudanum &c 71

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fraction, stimulants, cordials &c. The canth. was given in conjunction with camph. 1 gr. of each once an hour? N.B. By means of the canth. the latter ... camph. ...

A comp'd of canth. cal. & digit. also a compound of canth. squills & digit. have proved highly serviceable in dropsy. Notwithstanding Paris's assertion that canth. is incompatible with squills & digitalis, these compounds are valuable because they combine dissimilar ~~ingredients~~. Prof. T. has often succeeded in the use of dig. by ... ing alc. as a stimulant, when he had failed in using the article

Paruria inops var. paralytica

Paruria retentionis, produced by torpor of ... mind as by typhus, or by opium—

There are two prominent sorts of strangury one produced by acrids as canth. the other by narcot. as op. which are cured by the opposite articles. Where there is difficulty about using the catheter a full dose of aether, (a teaspoonful) will answer instead. Still we often cannot decide as to the cause of the strangury

Paruria mellita. Opium is the most val-

//

-nable single remedy. Canth. is a valuable adjunct. Prof. S has often put the pat upon a grain of opium to begin with — the patient will not generally be sleepy &c. Sometimes it is desirable to keep up a moderate degree of strangury. Clothe the pat. with flannel Sponge him with tinct. caps., or nitro muriatic acid — diet of an. food — little liquid Give always as a cath.

Tinct. canth. tinct op. & lime wat. or tinct. canth with mur. iron & tinct op — add also phosphorus — or common salt

Paruria incontinens — also Par. inc. var. aquosa (called enuresis) of children

Ephidrosis profusa external applic. of tinct. ~~tinc~~ with friction & internally

Pityriasis all the varieties may be cured by applying the tinct. with pract. to produce rubefaction — or plasters — generally the former. Said to be useful in Herpes (impetigo herpetica) But this is improbable. Diabstouents are the only effectual articles. Patients reduced very low by hemorrhage have been restored by Canth. wine of brandy when the latter fail — aromatic; also

C. vittata (or Lytta vit.) is found upon Solanum tuberosum, Datura, various species of Amaranthus, Actaea racemosa &c. (potato fly) — contains Cantharidin. Unquestionably strong[er] for external and internal use than C. vesic. C. cinerea is supposed to be still more active but is not very abundant with us. C. marginata is thought inferior found on Solidagos & Asters. Lytta gigas is twice as large & twice as strong and produces vesication more [illegible] than C. vi. — used in Philadelphia. Mylabris cichorii is the blistering insect used by Hippocrates now used in China. Dr. J. Woodward of [illegible] knew Apis mellif. to be a diuretic about half as strong as Canth. they used the infusion. They gave it as a diuretic to horses also. Tinct. would be better.

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f.15

b.

Med. Lect. 1832-3

Shaw also says that so many ulcerations black spots &c appear on the coats ~~also~~ of the stomach where there has been no poison appear to destroy the evidence for poison derived from such facts

Professors of anatomy in the United States quoted for the ~~same~~ opinion that anatomy is not too much, but too exclusively studied

Rheumatalgic inflammation of the heart, for instance, does not produce Arispercal effusion, yet the latter may take place in the last stages

Post mortem examinations should be made whenever practicable for several reasons

It is a great mistake to prescribe to the mere name of a disease Equally wrong is it to prescribe to symptoms without considering the laws of the disease in any case & the laws of the epidemic, also. For instance the pain in the head of cancer is not to be relieved like that of typh

Course of 1832 & 3 Materia Medica
Prof. Tully's 1st Lecture

Introductory remarks upon the mutual interest between professors and their pupils

Subject of the lecture was The negative part of Medical knowledge or the things to be avoided in practice

Prof T. is inclined to think our plan of medical education is radically inferior to what it was 50 or 60 years ago when a young man read 5 or 6 years under a practitioner & read & saw practice together. Our plan is not so ill calculated for surgeons

It is a great mistake to suppose that all pathology is to be acquired in the dissection room Baudelocque quoted in favor of this opinion Denman also Another (name not given

Post mortem examinations do not show the difference between entonic and atonic inflammation

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1.10

Introd. Lect. 1832-3

Habitual use of improper expressions such as "patients falling into my hands" "throwing in medicines" "what the patient will bear". A physician lost the practice of a lady & through her that of many others

It is an undoubted fact that the great majority of cases of sickness – not excepting fevers – will recover without medication. The fact alone that so many do recover under all modes of treatment, proves this

Endorsed, Oct. 1852 [illegible]

[illegible]

Ives. Tully. Vol. 12.
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Bethesda, MD

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